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THE DENTAL

Digest

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DECEMBER 1942

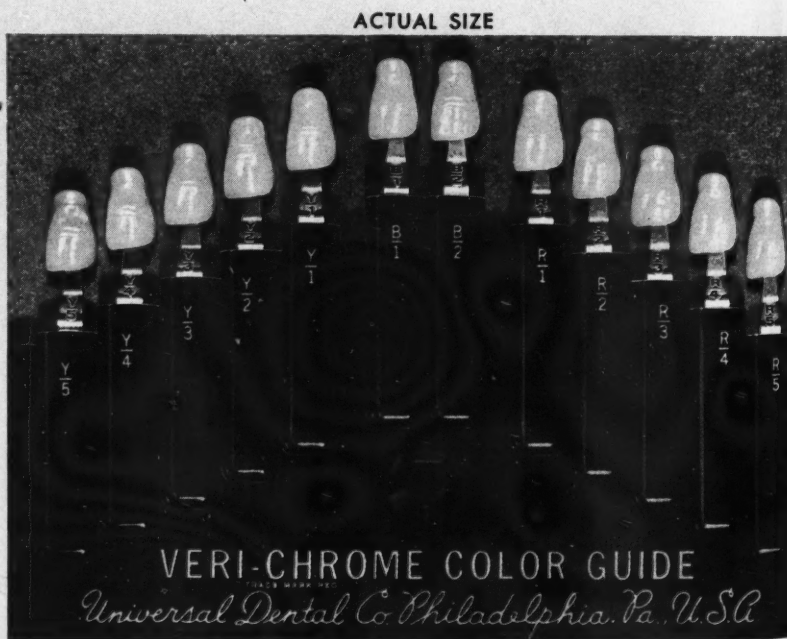
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DECEMBER 1942

Technique for Use of Non-Anatomic Acrylic Posterior Teeth, *Irving R. Hardy, D.M.D.* . . . 562

Dental Disturbances in Airmen (*An Abstract*) . . . 566

Sterilizing of Needle and Hub, *A. S. Resler, Ph.G., D.D.S.* . . . 567

The Use of Pins in Restorative Dentistry, *Benjamin Perlow, D.D.S.* . . . 568

Modified Technique for Treatment of Periapically Involved Teeth . . . 570
Henry J. Droba, D.D.S.

Announcement of Books Received . . . 572

An Unusual Reconstruction Case, *Lester D. Kaplin, D.D.S.* . . . 573

Multiple Impactions, *Lionel V. Swift, D.D.S.* . . . 576

Fracture of Mandible with a Transverse Fracture of Edentulous Maxilla . . . 578
Joseph E. Schaefer, M.D., D.D.S.

Semi-Annual Index . . . 580 The Editor's Page . . . 581 Contra-Angles . . . 582

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contributed to the literature; he was the founder of the Children's Dental Clinic for underprivileged children in Oklahoma City (1933) which is now supervised by the Tuberculosis Society of that city. Since the submission of his article in this issue, Doctor Swift has been transferred to the Veterans' Administration at Hines, Illinois where he is in charge of the Administration and Adjudication of Regional Office Dental Activities as well as the Administrative Supervision of the Central Dental Laboratory.

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Technique for Use of Non-Anatomic Acrylic Posterior Teeth

IRVING R. HARDY, D.M.D., New York City

DIGEST

Because acrylic resin is a tough non-brittle material, acrylic teeth can be formed with sharp food-cutting blades. Porcelain teeth carved to the same sharpness would be extremely fragile. Teeth with sharp food cutters make mastication easier and cause less ridge soreness, because less pressure is required to sever food fibers.

Acrylic teeth are quiet in operation, a factor always to be considered and especially so when perfect retention cannot be secured.

The technique outlined is designed to prevent the loss of sharpness of the teeth by excessive grinding or milling.

ACRYLIC RESIN is a material from which teeth can be molded with sharp food-cutting blades, blades which, if formed in porcelain, would be so friable as to fracture easily. The method of adjusting the occlusion in the mouth herein advocated, in which all or almost all the bite corrections are done on the upper denture, works to the following end:

The lower teeth are left with their cutting blades unimpaired. They are sharp and capable of cutting food fibers. It does not matter that the upper teeth have been dulled in adjusting them. All that is required of the uppers is that they present a somewhat non-skid surface. The lower teeth are the moving members; if they are left sharp, they will effectively cut and chop the food bolus. The lower teeth are freely sluiced



Fig. 1—Acrylic teeth as they come carved.

between the cutting blades to prevent food clogging—an important feature to keep the teeth functioning efficiently.

The technique presented here describes setting the teeth to a flat occlusal plane; but the teeth may be readily set to a curved surface if the operator wishes. I do suggest, however, that the flat plane technique be tried.

The non-clatter phase of acrylic posterior teeth is a feature worth mentioning. "Noisy" dentures are embarrassing. I do not claim that acrylic teeth are absolutely noiseless; they do, however, reduce the decibel rating to the point of auditory toleration.

Technique

1. *The Upper Tooth* (Fig. 1)—The buccal surface is that of a tooth showing occlusal wear and gingival erosion. Colors are made to blend with porcelain teeth. (The anterior teeth used in the case illustrated are porcelain.) The occlusal surface is flat except for a slight curving upward toward the buccal. The occlusal surface is criss-crossed by a series of ridges.

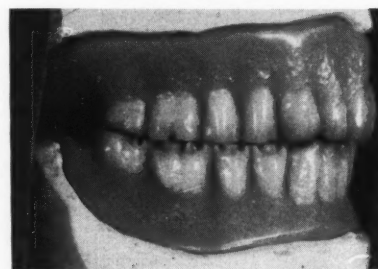


Fig. 2—Finished dentures in centric relation showing sharp cutters and free sluicing on lower. Second molars out of contact.



Fig. 3—Finished dentures in eccentric relation. Second molars are now in balancing contact.

2. *The Lower* (Fig. 1)—The lower tooth is full width with an occlusal surface on two levels. The working surface

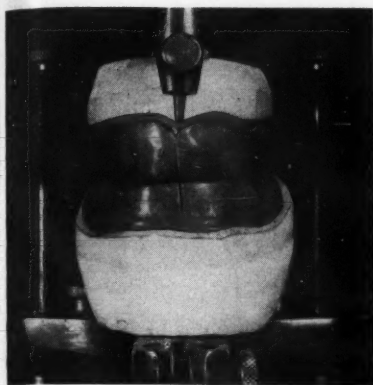


Fig. 4—Bite-block mounting on articulator.

is two-thirds the width of the tooth. This surface presents a series of sharp blades which run bucco-lingually. Free sluicing between the blades is designed to prevent food packing. The mandible in movement carries the blades into and through the food bolus severing food fibers with a minimum of pressure on the underlying ridges.

Completed dentures showing a flat occlusal plane, sharp cutting blades on the lower, and the second molars out of contact are seen in Fig. 2. How the second molars come into contact when lateral excursion is made is seen in Fig. 3 which is a view of the balancing side.

3. Casts with bite blocks are mounted on the articulator (Fig. 4). The type of articulator does not matter a great deal, but it should allow lateral movement, and an anterior guide pin is essential.

4. *Anterior Set-Up*—Anterior upper and lower teeth are set up and tried in the mouth (Fig. 5). Changes as required for esthetics are made, and the teeth are returned to the articulator.

5. *No Vertical Over-Bite*—A verti-

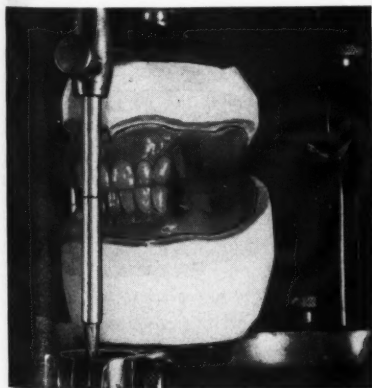


Fig. 5—Trial set-up of anteriors.

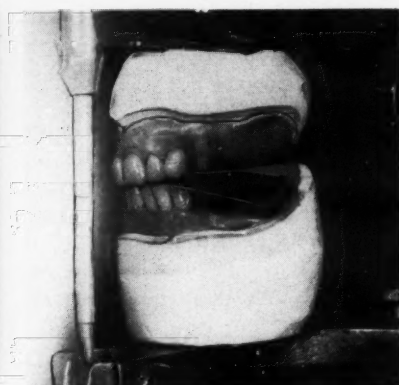


Fig. 6—Spotting interference on anteriors.

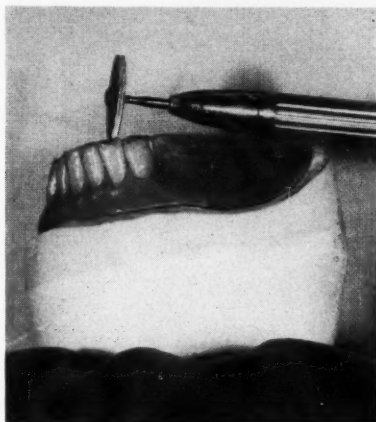


Fig. 7—Grinding out anterior interference.

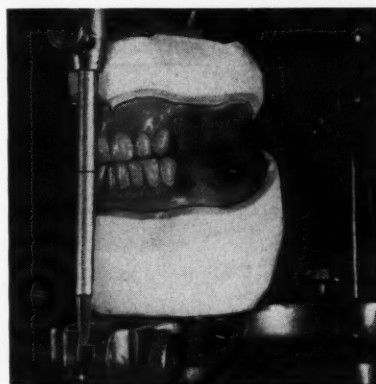


Fig. 8—Anterior teeth in eccentric with all lateral interference removed.

cal over-bite cannot be employed with the non-anatomic posterior teeth to be used (Fig. 6). The articulator, therefore, is set to such an opening as to allow the anterior teeth to move freely over each other when the articulator is manipulated. Where interference is noted, articulating paper is used for spotting, and the teeth are ground to eliminate any such interference (Fig. 7). In Fig. 8 the articulator is shown in

eccentric position and the anterior teeth are shown to be free of interference.

A way of registering the true centric relation at the vertical opening which has been established by the set up of the anterior teeth is illustrated. If the operator believes that the bite, as already taken on shellac baseplates with wax bite rims, is accurate, he may omit the steps shown in Figs. 9 through 12 and skip to Fig. 13. (I always use the technique shown here. It takes an hour, but it may prevent difficulties later.)

6. *Registering Centric Relation*—A shellac base tray (Fig. 9) is prepared and strengthened with a rim of modeling compound and a metal reinforcement is made across the palate. This baseplate covers the palate and ridges but does not enter any undercuts on the cast. The cast is covered with tin foil and zinc oxide impression paste is smeared inside the baseplate, pressed down on the tin-foiled cast and allowed to harden. When hard it is removed from the cast and the excess tin foil and zinc oxide paste are trimmed away. A rigid baseplate is now had which fits the bearing area of the cast. A central bear-

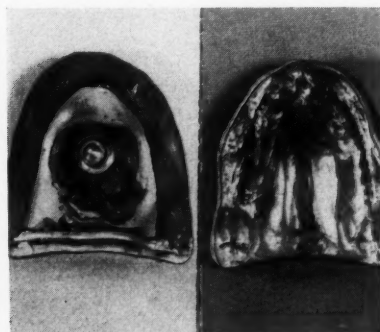


Fig. 9—Accurate upper base with central bearing point.



Fig. 10—Accurately fitting lower base with metal platform.

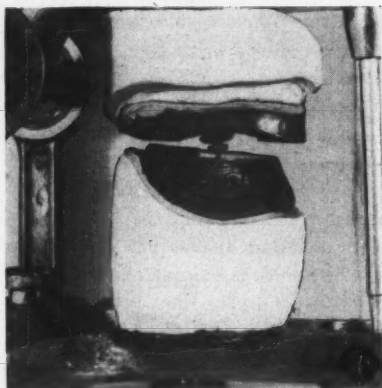


Fig. 11—Bite bases on articulator at correct opening.

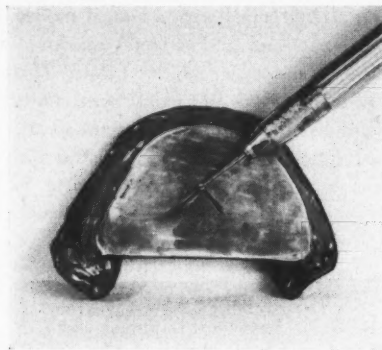


Fig. 12—Creating depression at apex of Gothic arch tracing.

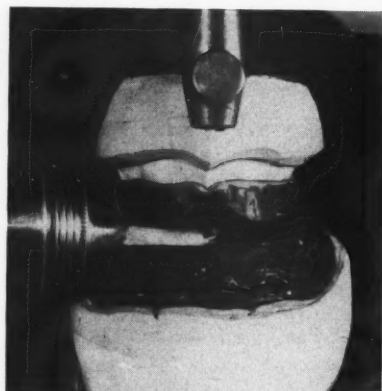


Fig. 13—Injecting plaster between bite bases (a mouth procedure, however).

ing screw is attached with modeling compound to the center of the upper base.

For the lower bite block (Fig. 10) the vulcanite tray used for securing the impression is utilized. (If a vulcanite tray is not used the lower bite may be made by the same method used for the upper.) Any part of the vulcanite tray covering an undercut on the cast (which would prevent free removal) is trimmed

away. The compound inside the tray is heated and the tray pressed down on the cast. It is then removed, trimmed, and tested to make sure that it seats evenly without rocking. A rim of modeling compound is built on it and to this is attached a heavy flat piece of brass plate (19 gauge). This plate should be about parallel to the ridge.

Fig. 11 shows the bite blocks on the articulator with the central bearing

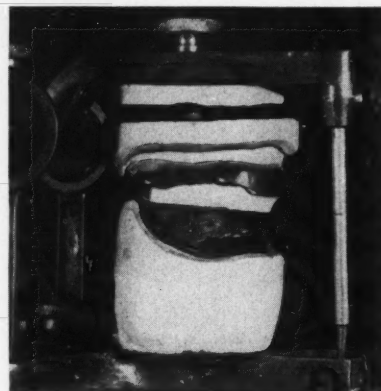


Fig. 14—Upper cast severed from mounting block preliminary to remounting.

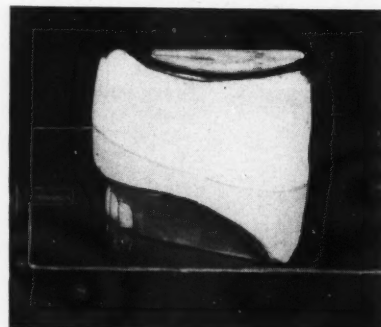


Fig. 15—Leveling wax bite rim to flat plane.

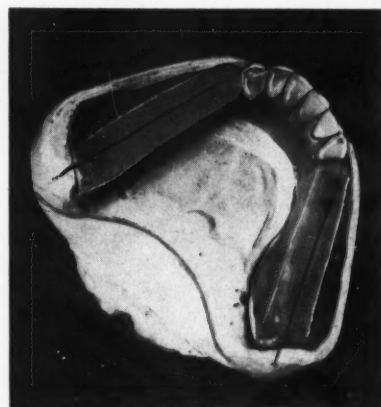


Fig. 16—Flat occlusal plane formed at same height as anterior teeth.

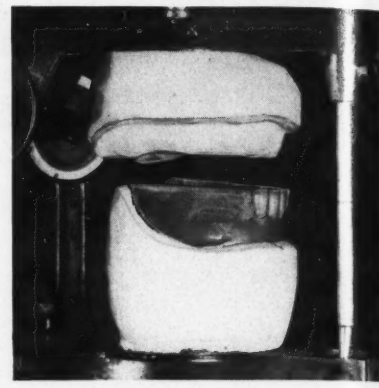


Fig. 17—Occlusal plane is parallel to upper ridge (also lower ridge).

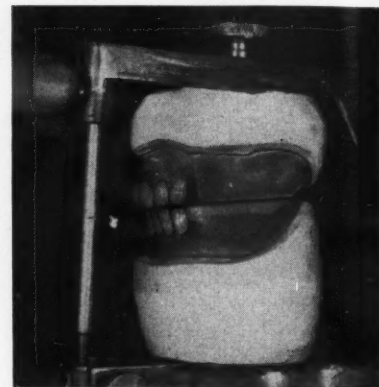


Fig. 18—Bite is opened 1 mm. on articulator.

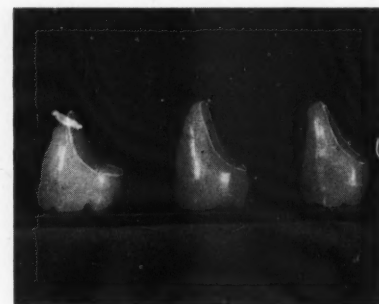


Fig. 19—Acrylic posterior upper teeth standing unsupported on flat surface.

screw on the upper touching the metal plate on the lower at the same opening as previously determined by work on the anterior teeth. The bite plates are now carried to the mouth. The patient is directed to slide the mandible around as if in chewing, and when the lower bite plate is removed the point of the upper screw will have scratched a V marking on the lower metal plate.

With a round bur a shallow depression is made at the apex of the V (Fig. 12). Return the bite plates to the mouth, and the patient, after a few exploratory

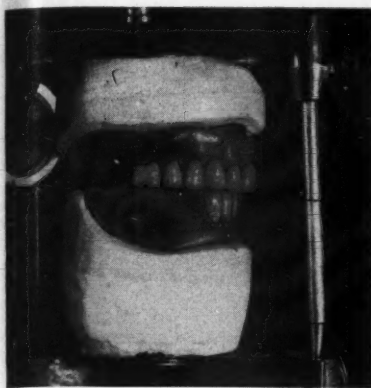


Fig. 20—Bicuspid and first molar set flat to lower occlusal plane.

moves, will seat the upper bearing point in the dimple made by the round bur in the lower metal plate. Instruct the patient to hold this position with a light pressure.

7. Plaster is shot in between the bite blocks as the patient holds them in position. This step, shown in Fig. 13, is strictly a mouth procedure, but was taken for photographic convenience on a model. A cake icing gun does well for this. When the plaster sets, remove the bite blocks and plaster from the mouth, clean thoroughly, and carefully reassemble.

8. Knock the upper cast free from its mounting on the articulator. Fig. 14 shows the upper cast free from its mounting block.

9. Remount the upper to the lower cast in the centric position obtained by the plaster block, accurate-fitting baseplates, and the Gothic arch tracing. An hour's time will give an exact centric mounting.

10. Setting up Posterior Teeth—

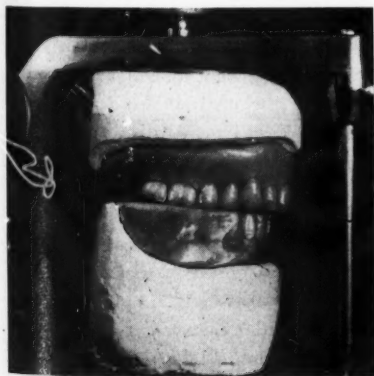


Fig. 21—Second molar added, tipped up from occlusal plane.

Build up the wax bite block on the lower rim to the height of the anterior teeth (Fig. 15). Have it flat antero-posteriorly and flat bucco-lingually. A flat metal plate which is warmed and placed against the wax (as shown in Fig. 15) is a help in making the bite block flat. An occlusal view of the flat occlusal plane is seen in Fig. 16. The scored marking, running back from the cuspid to the heels, indicates the crest of the underlying ridge and helps in placing the upper teeth in correct position.

The lower base is illustrated in Fig. 17 which shows how the flat occlusal plane is approximately parallel to the upper ridge crest. (It also parallels the lower ridge as well as possible.)

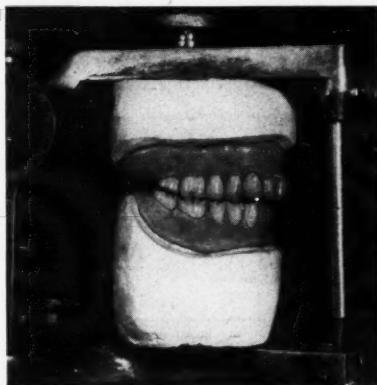


Fig. 22—Lower posteriors set to uppers.

The upper baseplate (Fig. 18) is put in place on its cast and the articulator is opened until there is 1 mm. of space between the upper and lower anterior teeth. (The teeth were already free from interference. This gives a millimeter of additional room which will be needed later.)

The upper posterior teeth will set up easily on the flat lower occlusal plane (Fig. 19). The upper posteriors stand by themselves when set on any flat surface.

The upper bicuspid and first molar are set flat on the lower occlusal rim (Fig. 20).

The second molar is added (Fig. 21) but it is tipped upward, backward, and outward from the rim. (If there is cramping for room, it may be omitted.)

The lower posteriors are set to the uppers (Fig. 22). It takes a little more time to set the lowers than the uppers,

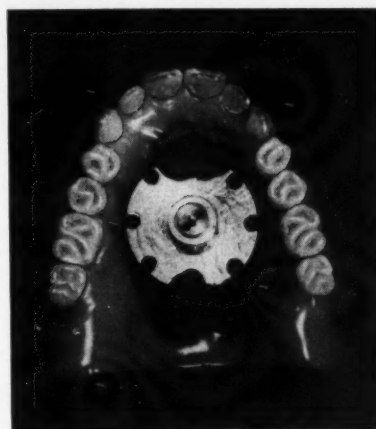


Fig. 23—Finished upper case with central bearing point attached.

but inasmuch as there is no intercusp relationship the teeth can be set cross-bite or any way that best suits the requirements of the case. The lower second molar is set parallel to, but not touching, the upper second molar.

11. *Processing*—The dentures are processed (Fig. 23). Despite every care the operator and the laboratory can take the dentures will need further adjusting for bite and balance. A central bearing point is secured with compound to the upper denture (Coble central bearing mechanism). The holes on each side of the bearing point are used to turn the screw up (to open the bite) or down (to lower the bite). The holes on the outer rim of the mechanism are to engage the compound which seals the bearing point to the denture.

A heavy piece of brass (19 gauge) is secured with compound, parallel with but just below the occlusal surface of the teeth (Fig. 24).

12. Adjusting and Milling—The



Fig. 24—Finished lower case with metal plate attached.

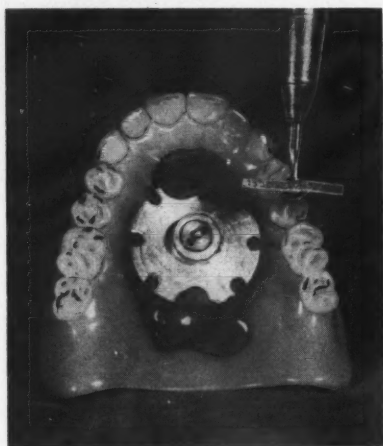


Fig. 25—Correcting occlusion on upper only.

cases are inserted in the mouth and the central bearing pin is adjusted until it keeps the teeth just out of contact (Fig. 25). Then carbon paper is inserted between the teeth and the patient is instructed to chew. Removal from the mouth will show carbon marks on interfering areas. These are reduced by grinding. The central bearing screw is

closed one-fourth turn, the dentures are returned to the mouth, and the carbon paper test is again made. Any points of interference are removed. All this grinding is done on the upper denture. That is the reason why the bite was opened 1 mm. on the articulator before the upper posterior teeth were set up. The millimeter that was allowed is now ground in adjusting the case.

The lower (Fig. 26) also shows the carbon paper marks, but the lower is not ground with two possible exceptions. If any point on a lower tooth projects above the occlusal plane (a tooth may have tipped in flaking), cut down the high point—only the high point. The second molars on the lower may also be ground where carbon marks indicate, for they are simply balancing ramps, not cutting teeth.

After spot grinding has been completed, a paste, made of glycerine and medium grit pumice followed by glycerine and fine pumice, may be smeared on the occlusal surfaces of the teeth and the patient directed to chew-in. A dozen

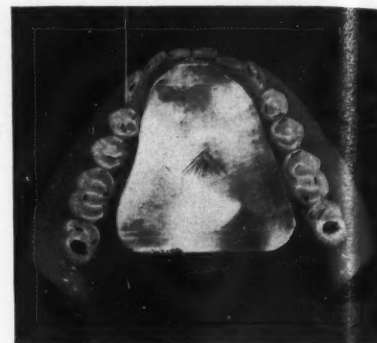


Fig. 26—Lower is corrected only on second molars (the balancing teeth).

movements from eccentric to centric on each side should be enough to correct any small discrepancies left from stoning the teeth. Do not over-mill. This can destroy the sharpness we wish to preserve.

When milling is completed the central bearing point is removed from the upper, the metal plate from the lower; the cases are thoroughly cleaned and delivered to the patient.

9 Rockefeller Plaza.

Dental Disturbances in Airmen

(An Abstract)

[From The British Dental Journal 73:122 (September 1) 1942]

“Dental Disturbances in Airmen:”

Locher answers a question on the subject (Rev. mens. Suisse d'Odont.): Complaints of toothache and dental disease, especially acute exacerbations of chronic periodontitis and granuloma, are common among flying personnel. There is little written on the subject. Dreyfuss wrote an article (L'Odontologie, 1937) in which he said that the surprising suggestion that flying in an aeroplane damaged the teeth came from a Japanese doctor who held that airmen had the worst teeth. An English airman declared that he and many of his colleagues had suffered from toothache during flying, the pain ceasing on landing. Dreyfuss recounted a personal observation of a student of aviation to whom he was unable to give adequate

dental treatment for lack of opportunity. His teeth gave him no trouble on the ground, but when he reached 1,500 or 1,800 metres he always got a severe toothache which lasted until he landed. This was traced to a subacute pulpitis in a lower molar and did not occur again after the tooth had been devitalised. An article by H. C. Neblett (Mil. Surgeon, 1923) reported a syndrome among airmen with headache, loss of appetite, tiredness, digestive troubles, which he attributed to chronic infection of teeth and gums. Hypertrophic inflammation of the gums, more severe in older airmen, was also observed, associated with pain sometimes slight and sometimes severe during flying, even in the case of carefully kept mouths. Locher had never seen this hypertrophy. Colonel Meier

after examining the relatively small material in the Swiss air force found that in most cases there was a possibility that cold air might promote parodontal disease in high flying personnel. About 25 per cent of airmen on full duty complained of dental troubles in a questionnaire, in many cases of neuralgic pains in the teeth in high flying and diving. A. Ott mentions the case of a patient with a granuloma under treatment which gave no trouble under 3,000 metres but became painful above this height; and quotes Schmuziger for a similar case cured by apicectomy. He also recalls that sudden toothache is associated with exhaustion in high mountain tours, and that a granuloma may flare up into an abscess in the same circumstances.”

Sterilizing of Needle and Hub

A. S. RESLER, Ph.G., D.D.S., New York City

DIGEST

A safe, convenient and effective method of sterilizing the dental hypodermic needle and its holding hub is suggested. The hub and needle are assembled, so that the fingers never need touch the needle. The needle and hub are unscrewed together from the syringe by means of the hub, and the assembly (the needle within the hub) is slid into the test tube.

To STERILIZE the dental hypodermic needle and hub the following procedure is recommended:

1. The needle within its hub is removed from the cartridge syringe and slid gently into an inclined 4 inch pyrex test tube, the cartridge-end down first (Fig. 1).

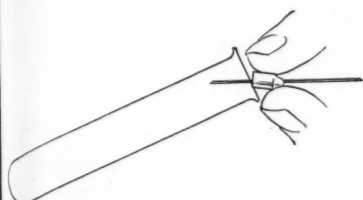


Fig. 1—Sliding needle within the hub (in prepared assembly) gently into test tube—cartridge end down first. Needle is not touched by fingers.

2. The test tube is filled with tap water and held over the bunsen flame (Fig. 2).

3. The first third of the boiling water is allowed to go over the top of the test tube, carrying with it coagulable material (Fig. 3).

4. Remaining water is now allowed to evaporate from the tube, the water boiling briskly, until the tube is dry (Fig. 4).

5. After the last few minute explosions are over, the tube is heated over the bunsen flame for three minutes, care being taken not to overheat (Fig. 5).

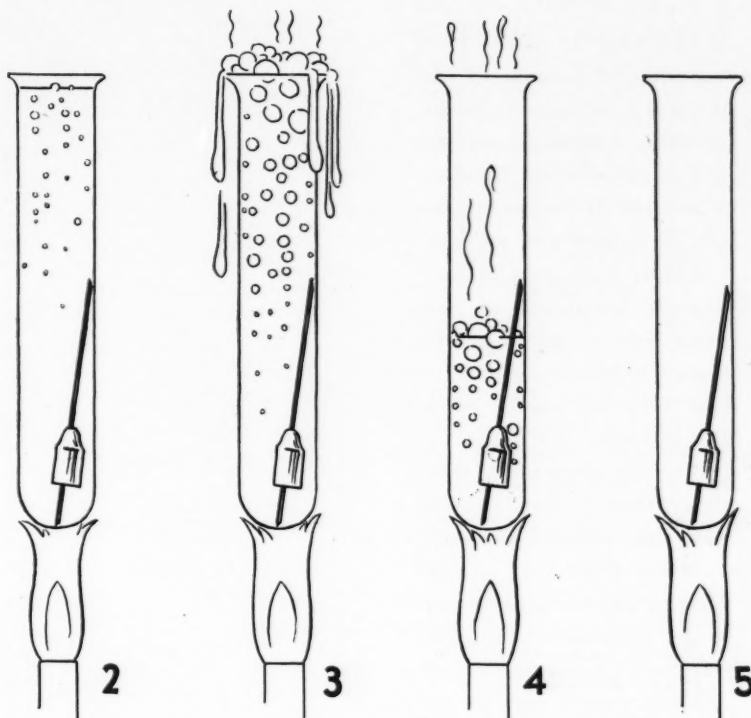


Fig. 2—Test tube filled with tap water and held over bunsen flame.

Fig. 3—Coagulable material being allowed to bubble over top.

Fig. 4—Remaining water evaporating from tube.

Fig. 5—Dry tube heated for three minutes.

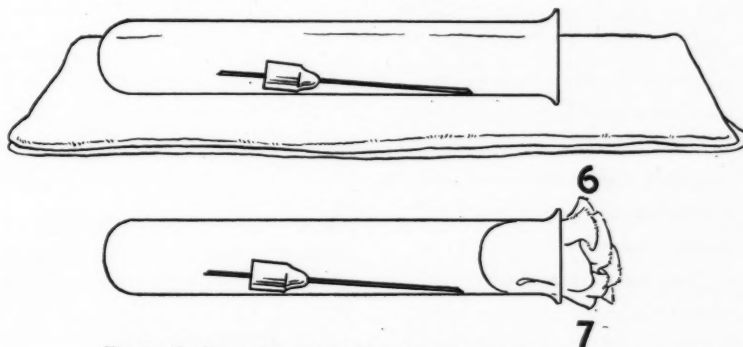


Fig. 6—Cooling tube on its side on square of gauze.

Fig. 7—Opening stuffed with sterile gauze.

5). (Injudicious heating will fuse the ball on the needle.)

6. The tube is now placed on its side on a square of gauze (Fig. 6) and in a few minutes will be cool enough to have the opening stuffed with sterile gauze without scorching it (Fig. 7).

7. When the needle is required for use, the needle and the hub (the pre-

pared assembly) may be slid over a square of gauze by means of the knurled side of the hub, and the assembly is affixed to the syringe. Again the sterile needle is not touched by the fingers.

It is advisable to have several test tubes prepared and on hand.

1265 Lexington Avenue.

The Use of Pins in Restorative Dentistry

BENJAMIN PERLOW, D.D.S., Pittsburgh

DIGEST

In the past the use of pins was limited because of the difficulty of manipulation—cutting a small piece from the length of wire, bending it so that it would be retained in the wax pattern, and then in the gold, getting enough clearance at the point where the pin was bent, occasional failure to cast when one attempted to cast the pins.

The introduction of pins that remove these objections has opened a larger field for their use: (1) in cases in which it is necessary to get maximum retention but only a minimum of tooth structure may be removed; (2) to restore broken walls of vital teeth; (3) to have added retention for three-quarter crowns on short teeth; (4) to make modified three-quarter crowns where it is desirable to eliminate the appearance of gold; (5) to obtain added retention for porcelain and acrylic inlays.

The basic procedures for these purposes are described and illustrated.

TO USE PINS in operative dentistry successfully, they must possess physical properties that will permit casting against them without danger of their being made weak or brittle; therefore, they must have a high tensile strength, and a sufficiently high fusing temperature. They must be non-oxidizing and highly resistant to attack from sul-

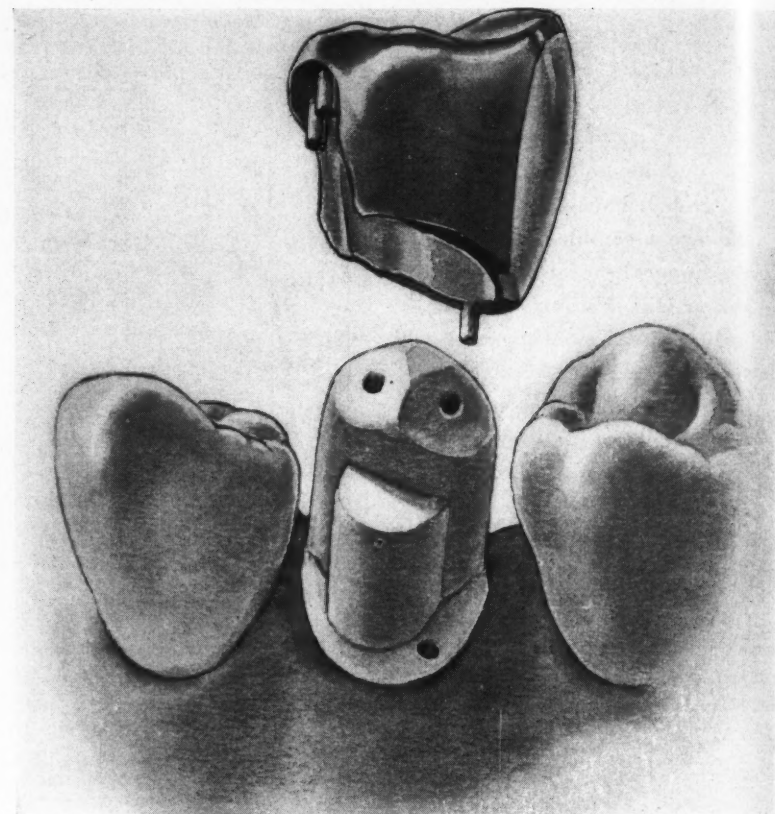


Fig. 1—Bicuspid preparation. Buccal view of teeth.

phur given off by hot investments.

1. The restoration (Fig. 1) is removed in the case of an MOD inlay or amalgam restoration in position in an upper bicuspid in which the buccal wall is broken.

2. A slice is made on the mesial and distal; the lingual portion of the occlusal surface is beveled to obtain clearance with the occluding teeth.

3. Undercuts are filled in with cement.

4. Three post holes are sunk as illustrated (Fig. 1). A number 1 round bur is used. This provides a post hole just wide enough to accommodate a pin of 21 gauge (.028 inch in diameter). Post holes are sunk to a depth of one sixteenth to one eighth of an inch, as close to the latter as possible. The post hole on the buccal is placed at the distobuccal angle.

5. Pins are then inserted and the case is waxed. When waxing is done by the indirect method, a copper band is fitted, and the lingual of the band is cut away, so that it does not pass over the height of contour. The impression is taken in compound, and with the pins in position. When the direct method is used the band is prepared in the same

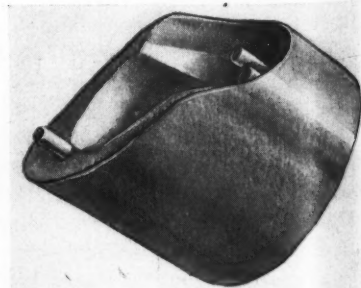


Fig. 2—Pins in position in the wax impression.

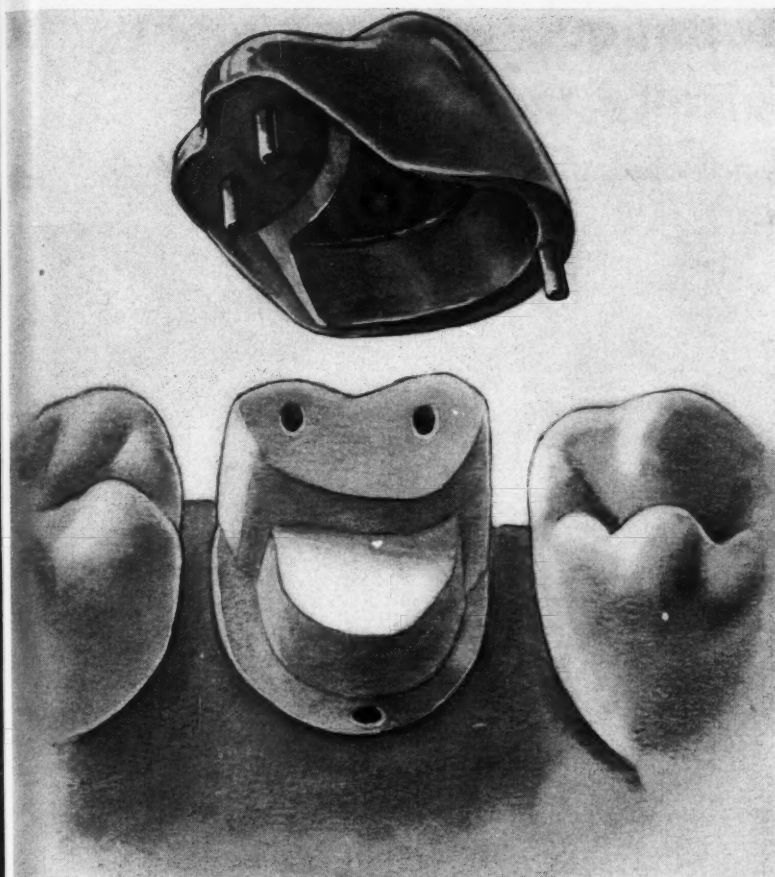


Fig. 3—First molar. Lingual view of teeth. Condition in which lingual wall of upper molar is broken off, usually with MOD restoration in position. Preparation is similar to that described for Fig. 1. Because there is usually a lingual bulge immediately above the gingival on the lingual root the lingual post hole is not sunk in the exact mesio-distal center, but either slightly to the mesial or to the distal of the center, thus decreasing the danger of exposing the pulp.

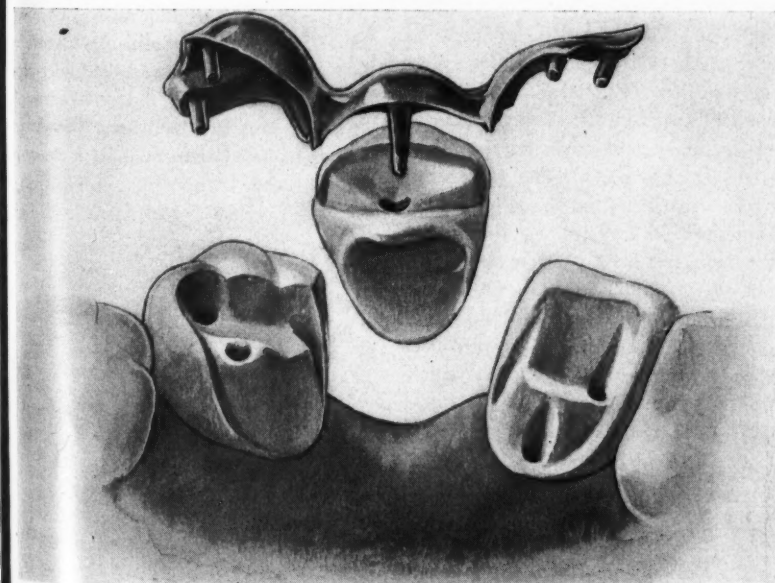


Fig. 4—Lateral and bicuspid. Lingual view of teeth. Gingival edge of bridge. Preparation is described in text.

way, and is filled with inlay wax. The impression is taken (Fig. 2); the band is cut away, and the wax model is completed.

6. The entire buccal surface is cut out with the exception of a thin strip at the occlusal, and just enough in the gingival region of the disto-buccal angle to hold the buccal pin. This will allow for placing a silicate or porcelain window after the casting is cemented.

7. In the finished restoration the entire occlusal surface consists of gold. The only metal visible from the buccal is the thin edge at the occlusal, and what looks like a small gingival gold inlay at the disto-buccal angle.

The tooth can also be restored by combining gold and acrylic. The preparation is the same. The pin on the buccal is engaged by the acrylic, which, in turn, is engaged by the gold casting. The acrylic covers the entire buccal surface and extends over the occluso-buccal angle. The result is a restoration in which no gold is visible.

If the patient presents with an upper cuspid missing (Fig. 4), and the treatment planned is a porcelain incisal pontic with abutments on the lateral and first bicuspid, modified three-quarter crowns are used as abutments.

1. The distal surface of the lateral and the mesial surface of the bicuspid are prepared in typical three-quarter crown fashion, except that the slice in the lateral does not extend all the way up to the incisal edge and out to the labial, and in the bicuspid the slice does not extend all the way up to the occlusal and out to the buccal. In the lateral the slice extends just incisally and labially to the contact point, and in the bicuspid just occlusally and buccally to the contact point.

2. The lingual step in the lateral, and the occluso-lingual step in the bicuspid are prepared in typical box-cavity fashion.

3. Two pin holes are then sunk in each tooth as illustrated (Fig. 4).

4. Pins are inserted, and the models are waxed.

5. After the castings are completed bridge is finished in the usual manner.

Suggestions

Before inserting pins into pin holes
(Continued on page 575)

Modified Technique for Treatment of Periapically Involved Teeth

HENRY J. DROBA, D.D.S., Chicago

DIGEST

A modified technique is presented for the treatment of periapically involved teeth. The usual procedure is reversed: Instead of filling the root canal and then removing the necrotic and eroded root-end, an incision is made under aseptic conditions to permit surgical access; the involved root-end and granulation tissue are removed first. With both ends open a thorough curettage of the root canal is possible without leaving any debris in the periapical space. The root canal is then filled; the muco-periosteal flap is returned to its original position, and the coronal restoration is placed.

"RADICAL AND Heroic Treatment of Alveolar Abscesses by Amputation of Roots of Teeth" is the title of an article written by J. N. Farrar in 1884. Without question this treatment must have been radical and heroic in 1884 when roentgenograms, local anesthesia, and bacteriology were undeveloped. Today, however, with highly developed roentgenography, with local anesthetics, and an appreciation of micro-organisms, root-end resection is not and should not be considered heroic treatment. Root-end resection is an accepted method of treating teeth that have failed to respond to routine root canal therapy. A prime objective of dentistry is to maintain the health of the patient and at the same time retain, insofar as possible, the natural teeth for function and esthetics.

Usual root canal procedures require

time that may not be available under accelerated war conditions. A rapid method for treating injured and necrotic pulps in anterior teeth resulting from war injuries will save many teeth which otherwise would need to be extracted. It is my belief that in many instances we can now predict failure of the ordinary root canal therapy before treatment has begun. The recognition of such cases and the use of a modified root resection technique can eliminate the extensive loss of time from prolonged and unsuccessful root canal treatment. A technique that I have employed for fourteen years has been successful in such cases. Federspiel,¹ Colton,² Phillips and Maxmen³ have employed a similar method.

¹Federspiel, M. N.: The Indications for Apicoectomy, with Report of Cases, D. Cosmos 78:726 (July) 1936.

²Colton, M. B.: A Simple Rational Root-Canal Therapy Employed in Conjunction with Apical Resection and Curettage, J.A.D.A. 23:2128 (November) 1936.

³Phillips, W. A., and Maxmen, H. A.: A Practical Root Resection Technique for Young Permanent Anterior Teeth, DENTAL DIGEST 47:60 (February) 1941.

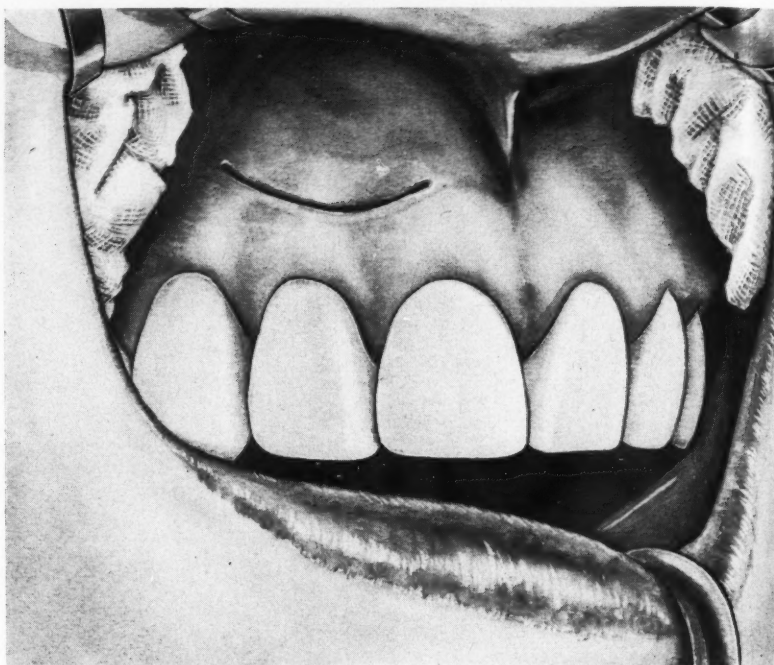


Fig. 1—Shape and position of incision for root-end resection.

Indications

The technique to be described may be employed for:

1. Any anterior tooth, upper or lower, requiring root canal therapy when there is insufficient time to carry out accepted routine treatment.
2. Any anterior teeth that do not respond to usual treatment in a reasonable time.

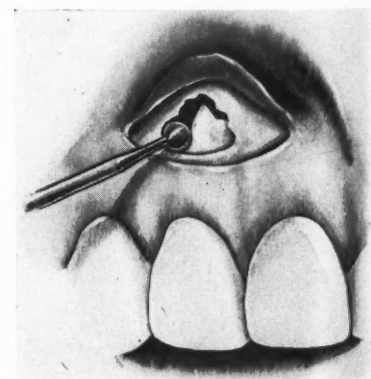


Fig. 2—Removal of the bone overlying the apex using a number 8 round bur.

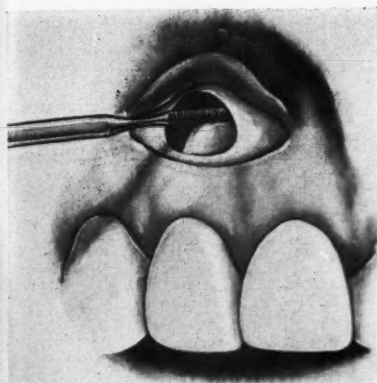


Fig. 3—Amputation of the eroded root-end with a number 557 cross-cut fissure bur.

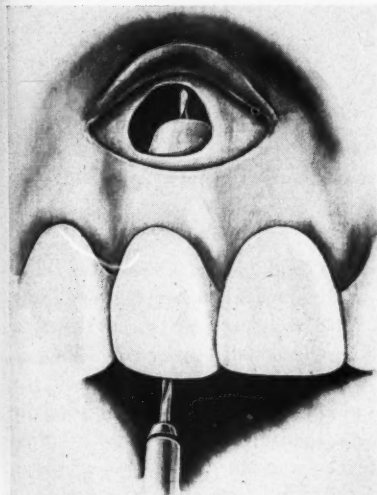


Fig. 4—Preparation and enlargement of root-canal.

able length of time; that is, when the root canal cannot be dried or made bacteriologically negative.

3. Anterior teeth in which the crown is broken off, and it is impossible to place a rubber dam.

4. Anterior teeth having a large granuloma or a cyst in the apical region.

5. Anterior teeth with roentgenologic evidence of root resorption.

6. Teeth with perforated root canals.

7. Anterior teeth in which the pulp became necrotic before the root was completely formed, resulting in a large apical opening.

Contra-Indications

The technique recommended here is contra-indicated for:

1. Loose anterior teeth in which the alveolar process has been destroyed and deep pockets are present.

2. Teeth that have the root canals

obliterated, making them inoperable.

3. Patients who lack interest in retaining teeth.

4. Patients having systemic ailments, such as: arthritis, neuritis, nephritis, diabetes, heart involvement, or any disease with a focal infection relationship.

Technique

1. Anesthetize the area with a 2 per cent procaine hydrochloride solution containing 1:50,000 adrenalin. This will produce adequate anesthesia as well as sufficient ischemia to control bleeding.

2. Place a saliva ejector and block off the area with sterile gauze sponges.

3. Prepare the surface to be operated on by painting with 3 per cent tincture of iodine and wiping the area with alcohol.

4. With a suitable bur open into the pulp chamber through the lingual aspect of the crown.

5. Select a broach of proper size and remove as much of the pulp and debris from the pulp chamber and root canal as possible.

6. With a small scalpel, make a semi-lunar incision directly over the root of the tooth involved, about midway between the gingival margin and apex. This will provide better access than if

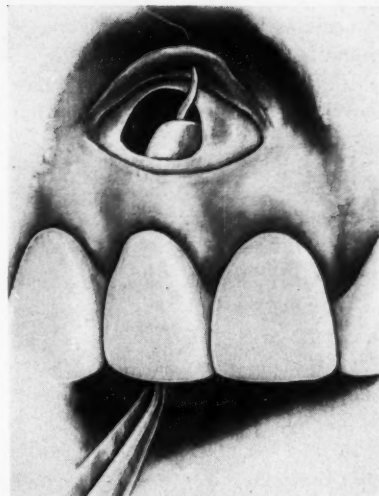


Fig. 5—Gutta-percha protruding from canal. This excess will be removed.

the incision were made closer to the muco-buccal fold.

7. With a periosteal elevator raise the muco-periosteal flap exposing the bone over the apex of the tooth.

8. With a round bur number 8 or a small surgical bur, cut away the bone exposing the apical portion of the root.

9. With a cross-cut fissure bur, number 557 or 558, remove the eroded portion of the root. If the root-end is not seriously involved, remove the necrotic

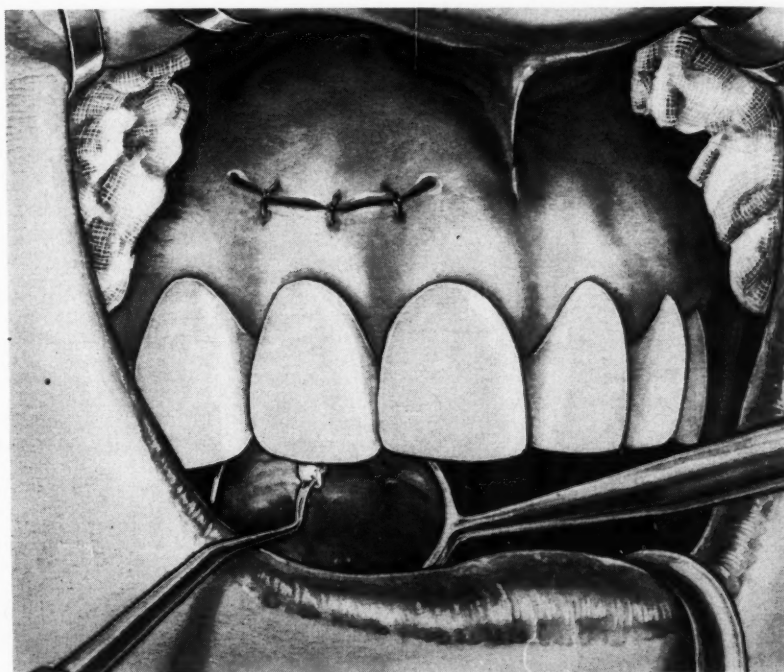


Fig. 6—Muco-periosteal flap sutured. Operation completed.

cementum about the apex with a small round bur.

10. With a discoid or small curet, remove the granulation tissue in the apical space.

11. With files of suitable size, file the root canal. Enlarge the root canal until all soft dentine within the canal is removed.

12. Aqueous chlorine solution is used to wash the root canal and periapical area.

13. Dry the periapical area with cotton pellets and the root canal with paper points.

14. Dip a gutta-percha point into a little eucalyptol or a good plastic root filling material and place it into the root canal, forcing a portion of it through the apical end. Use pluggers and condensers until the canal is well filled and condensed.

15. With a warm plastic instrument, remove the excess gutta-percha protruding from the apex.

16. Smooth and round the apex.

17. Return the muco-periosteal flap to its original position, and suture.

18. Place the permanent coronal restoration at this time.

Results

More than 300 teeth have been treated by this method. Complete records of 105 cases are available. The number and types of teeth treated are listed: 35 upper centrals, 45 upper laterals, 12 upper cuspids, 2 lower centrals, 6 lower laterals, 2 upper first bicuspid, 1 upper second bicuspid, 1 lower first bicuspid, and 1 upper first molar.

The age group varied from 7 years to 60 years. All teeth have been followed with at least one subsequent roentgeno-

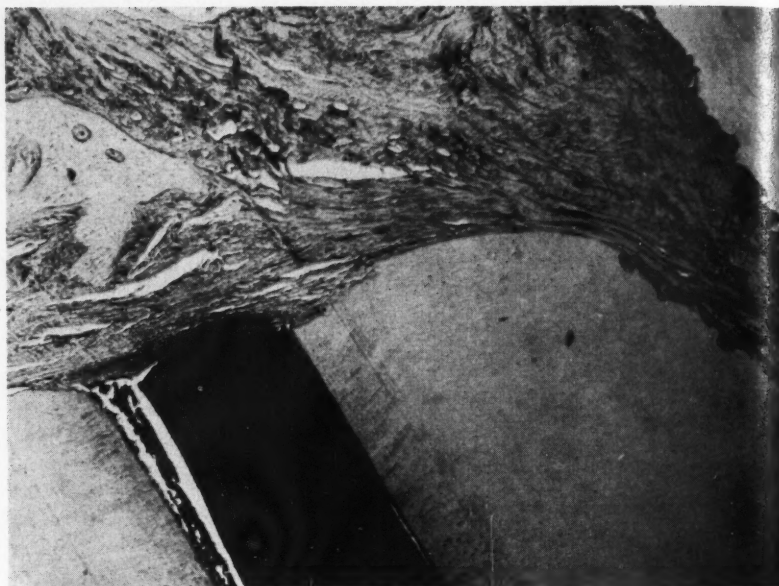


Fig. 7—Photomicrograph showing repair of periapical tissues four years after treatment by modified technique.

graphic and clinical examination six months after treatment. The longest case under observation was over a period of 14 years.

Only one tooth treated by this method has been extracted, and that was removed four years after treatment to make way for a full denture because of the failure of other teeth in the arch. The periapical region was roentgenographically normal at the time of removal. The extracted tooth was prepared for histologic examination. The tissue attached to the resected root surface was found to be free of inflammatory cells, indicating that the area was free from infection. During the four-year period, cementum had not been deposited over the resected root surface.

The following conclusions are reach-

ed as a result of the fourteen-year use of a technique for treating periapically involved pulpless teeth by root resection followed immediately by root filling:

1. Early removal of necrotic material is possible in the apical portion of the tooth, particularly in the multiple apical foramina, by the complete removal of the root-end.

2. The technique enables the operator rapidly and thoroughly to enlarge, cleanse, and irrigate the root canal, because the canal is accessible at both ends.

3. A positive and complete sealing of the apical opening of the root canal is possible, because of the access and direct vision of that area through the window in the alveolar process.

31 North State Street.

Announcement of Books Received

SYNOPSIS OF FULL AND PARTIAL DENTURES (with 107 Illustrations), By Lieut. Colonel Roger G. Miller, D.C., St. Louis, The C. V. Mosby Company, 1942.

OUTLINE OF THE CHEMISTRY OF DENTAL MATERIALS, By Laurence G. Wesson, Ph.D., St. Louis, The C. V. Mosby Company, 1942.

PAIN, By Thomas Lewis, M.D., F.R.S., New York, The Macmillan Company, 1942.

PHLEBITIS REVEALED (A New Approach to Old Diseases), By Otto Meyer, M.D., Brooklyn, The Polygon Press, 1942.

An Unusual Reconstruction Case

LESTER D. KAPLIN, D.D.S., Chicago

DIGEST

The treatment and restorative procedures are described and illustrated in an unusual case of reconstruction. The patient was a woman with a marked closure of the intermaxillary space and a pronounced prognathous jaw. The case was further complicated by discomfort in the temporomandibular joint, drifting, abrasion, and trauma.

A YOUNG WOMAN, aged 30, presented on March 6, 1940, with a marked closure of the intermaxillary space and with a conspicuous prognathous jaw (Fig. 1). There was some discomfort in the temporomandibular joint and difficulty during mastication. The lower anteriors were drifting and the upper anteriors were being abnormally abraded and traumatized. Previous dentists had recommended a full upper denture and a partial lower, to which the patient was reluctant to agree. Full mouth roentgenograms and study model impressions were taken, and all teeth tested for vitality. Only one tooth was pulpless and that was later extracted.

Treatment

1. On March 16, a lower anterior splint, made of coin silver, was cemented to place to aid in opening the bite and in jumping the upper anteriors over the lowers (Fig. 2).

2. At the same time molar anchor bands were cemented and an E-arch was adjusted to expand the upper arch anteriorly (Fig. 3, A).

3. On May 15, the anterior silver splint was removed and bands were placed on the lower left cuspid and the lower right first bicuspid with hooks for rubber elastic bands which were stretch-

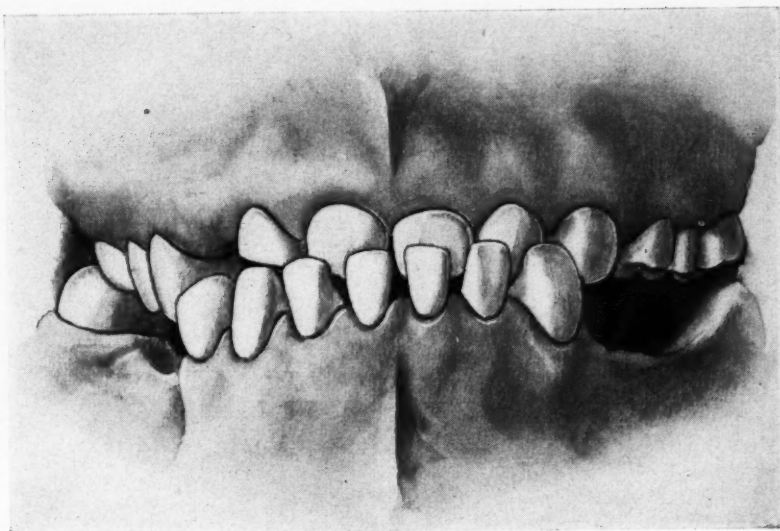


Fig. 1—Case before treatment.

ed across the labials of the anterior teeth (Fig. 3, B).

4. Within seven weeks both the upper and lower bands were removed and the

anterior teeth were allowed to close with a normal overbite, also allowing the head of the condyle to assume its normal position in the glenoid fossa.

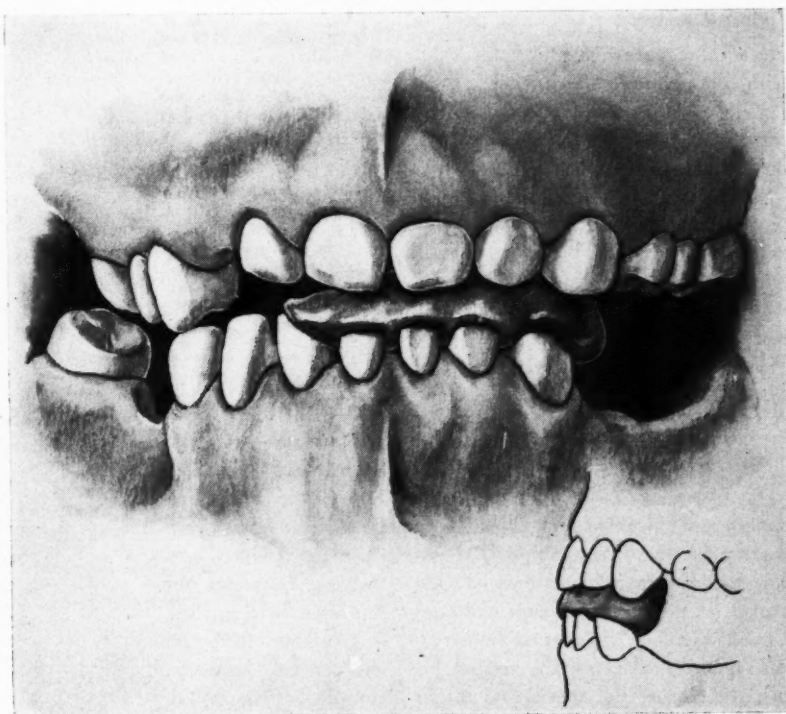


Fig. 2—Silver bite splint. Small diagram shows profile view.

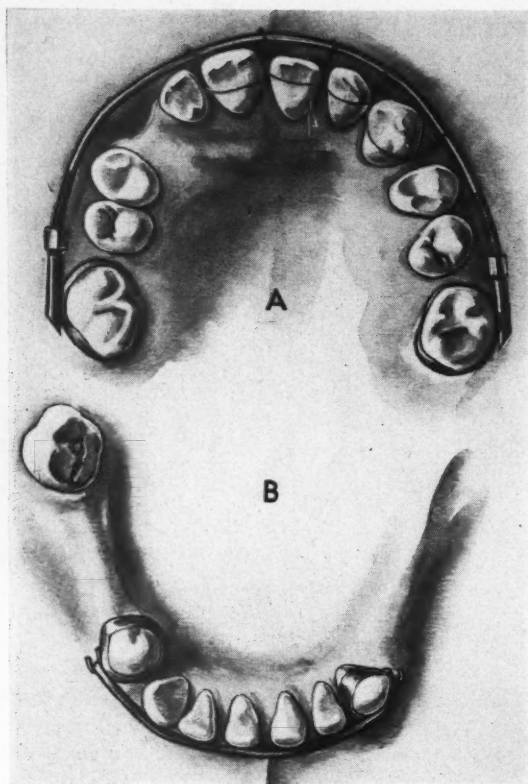


Fig. 3

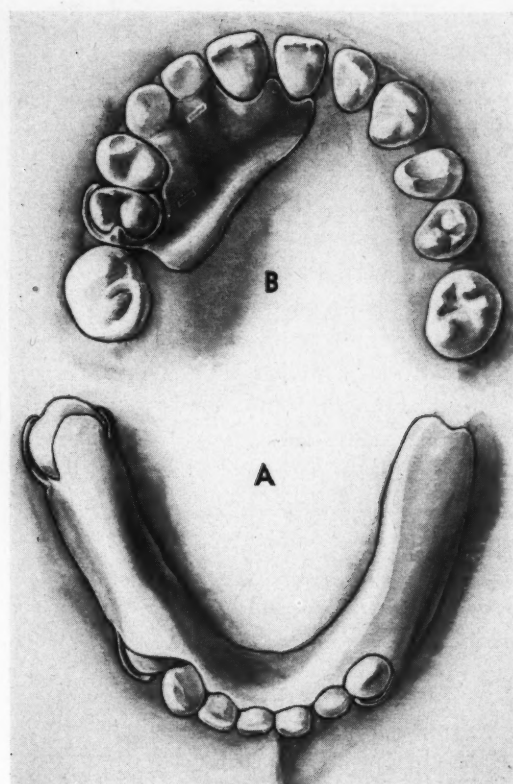


Fig. 4

Fig. 3—A, E-arch attached to molar anchor bands, and ligated to anterior teeth. B, Rubber bands stretched across labials of lower anteriors.

Fig. 4—A, Acrylic splint in place. B, Temporary acrylic partial denture in place.

5. At this time an impression was taken of the lower jaw and an immediate acrylic treatment splint was made with three wire clasps upon which the patient masticated and at the same time retained the teeth just moved into contact (Fig. 4, A).

6. On October 7, the upper left pulpless lateral was extracted and a temporary acrylic partial bridge was placed to allow the mouth to function normally while the restorations of the upper teeth were being made (Fig. 4, B).

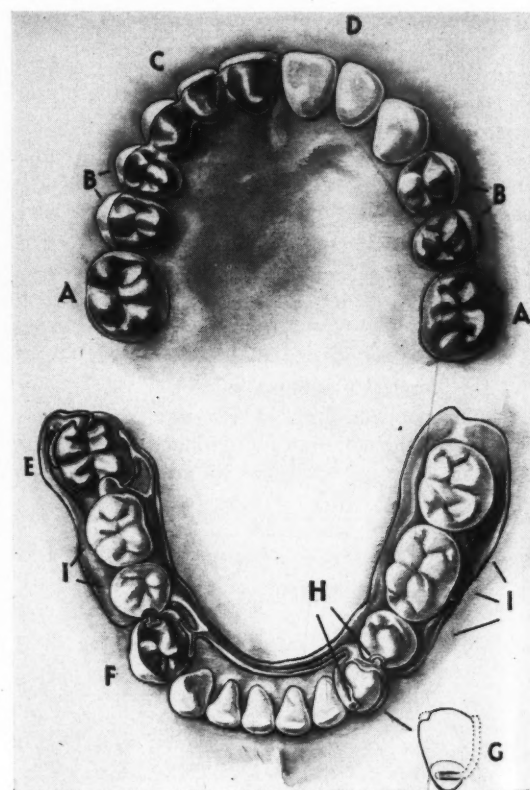
From this point on the time required for complete restoration was four and one-half months.

Restorative Procedure

1. Inasmuch as both upper first molars and the third molars had been missing for many years, the second molars drifted forward. Cast crowns were placed on the second molars and contoured (Fig. 5, A) to contact the porcelain veneer crowns on the second bicusps, closing the space, and establishing proper proximal contact (Fig. 5, B).

Fig. 5—A, Cast gold crown on upper second molars. B, Upper bicusps restored with porcelain veneer crowns. C, Fixed bridge using first bicuspid and central as abutments. D, Porcelain jacket crowns on central and lateral. E, Cast gold crown on lower second molar. F, Porcelain veneer crown on first bicuspid. (Note precision rest.) G, Diagram of cuspid showing groove on porcelain inlay for clasp arm. H, Split lingual bar and rod-and-tube attachment. I, Acrylic teeth.

2. The first bicusps were restored with porcelain veneer crowns, the right first bicuspid acting with the right veneered central as abutments for the fixed bridge (Fig. 5, C). The left central and lateral were restored with porcelain jacket crowns (Fig. 5, D).



3. In the lower jaw a cast crown (Fig. 5, E) was made on the second molar and a porcelain veneer crown on the first bicuspid (Fig. 5, F) with a precision rest to eliminate the display of the clasp on the buccal of this tooth.

4. The lower left cuspid presented a discolored labial amalgam restoration. This was replaced by a porcelain inlay which was made with a horizontal groove in the labial for the proper positioning and retention of the labial clasp arm.

5. Particular attention should be paid to cuspid-retaining extension cases. In this case a split lingual bar was used in conjunction with a rod and tube attachment to allow the ridge to take the load of stress (Fig. 5, H).

The premature loss of the cuspid would complicate the success of another lower partial. Every effort should be made, therefore, not to employ rigid appliances. Stress breakers are advisable for maximum efficiency.

The rigid portion of the recommended appliance should have sufficient occlusal stops and recessed rests to prevent

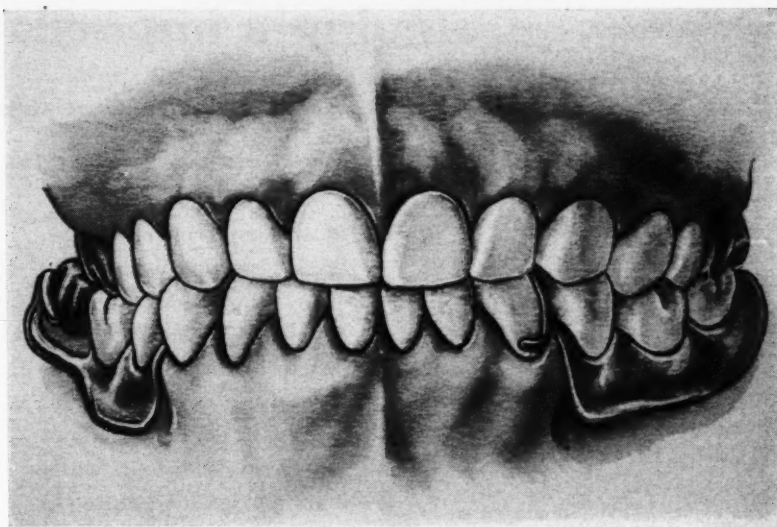


Fig. 6—Completed case.

settling of the appliance and to direct the load of mastication upon the natural teeth without resultant trauma and discomfort.

Comment

Before the advent of acrylic materials, it was necessary to shoe porcelain

denture teeth with gold, so that the porcelain would not act as a file and abrade the thin but hard gold castings, thus ruining anatomic markings and reducing the intermaxillary relationship. This is not now necessary.

30 North Michigan Avenue.

The Use of Pins in Restorative Dentistry

(Continued from page 569)

preparatory to carving wax models or taking impressions, a little white vaseline is worked into the pin holes with a smooth broach. The vaseline not only acts as a lubricant, but also, because it has enough body, prevents the pins slipping out or becoming dislodged.

Gutta-percha, wax, or cement, if placed into the pin holes to remain between sittings, are difficult to remove. Instead, a few shreds of absorbent cotton, dipped into dentalone, are packed into each post hole. The excess dentalone is removed, and a thin layer of

varnish placed over each post hole. When the patient returns the varnish is removed and the shreds of absorbent cotton are withdrawn by means of a barbed broach.

312 Pitt National Bank Building.

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Multiple Impactions*

LIONEL V. SWIFT, D.D.S., Muskogee, Oklahoma

Report of Case

A WHITE MAN, aged 47, a veteran of World War I, 5 feet, 6 inches tall, weighing 130 pounds reported to the Dental Clinic of the Veterans' Administration, on April 16, 1941 for examination and emergency dental relief. He was nervous and complained of soreness of the alveolar ridge at the median line on the mandible, stating that he was unable to wear a denture.

Examination—The mouth on superficial examination appeared to be edentulous, the natural teeth having been replaced by full upper and lower dentures. There was a slight irritated hard protuberance in the region of the lower left central incisor. It was supposed that a retained root was present. A dental roentgenogram revealed instead of a root, however, four impacted teeth in a narrow ridge (Fig. 1).

History—The patient was questioned further regarding symptoms and dental history. He stated that he was nervous at times and had severe headaches radiating from the temple to the back of the head, and at intervals he had had pain in the lower anterior ridge which was aggravated by the denture. He related that at the age of 12 or 13 years, the family physician had extracted the lower right and left first and second permanent molars. The permanent lower right and left cuspids had not erupted, but the deciduous cuspids were retained in place. The permanent lower lateral incisors had not erupted; only two central incisors had erupted. At 20, a seven-tooth bridge was placed; the right lower central, cuspid, and right third molar were crowned. In 1927 his private dentist, without securing roentgenograms, extracted what he thought to be the patient's remaining teeth, consisting of seven teeth in the maxilla and eight teeth in the mandible. The patient had had replacements by upper and lower dentures within sixty days after extrac-

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DIGEST

In the case reported here, the patient had made every effort to wear dentures. He had visited more than a dozen dentists; purchased thirteen lower dentures and two upper dentures without satisfactory results in eliminating ridge tenderness. At no time throughout his previous professional visits was a roentgenogram taken or suggested to determine the etiology of painful ridges. This case emphasizes that dentists should be more thorough in diagnostic measures; that roentgenograms should be more generally utilized, as they may reveal the etiology of many failures by disclosing unsuspected conditions. In this case impactions were revealed roentgenographically. These impactions were removed surgically.

tions. He stated that he had had thirteen lower dentures in an effort to obtain one with satisfaction and without discomfort in the lower anterior ridge.

Treatment—On consultation with the Chief Medical Officer, it was concluded that the patient should be hospitalized for surgical removal of these impacted teeth, as the possibility of pathologic fracture was strong, because of the thin narrow mandible.

Preoperative Procedure—The patient was hospitalized, April 23, 1941, for removal of impacted teeth. The following day he was referred to the dental clinic, at which time further roentgenograms were taken. A urinalysis, Wasser-

mann reaction, and the coagulation and bleeding time were secured. Additional roentgenograms were taken, of the upper and lower occlusal plane, which revealed that the patient had not only four impacted teeth but eight (Figs. 2 and 3). Fig. 2 shows two lateral incisors, two cuspids, and two first bicuspids in the mandible. Fig. 3 shows the impacted upper right and left cuspids, slightly

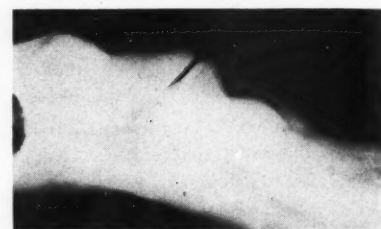


Fig. 1—Roentgenogram of lower anterior area reveals four impacted teeth.

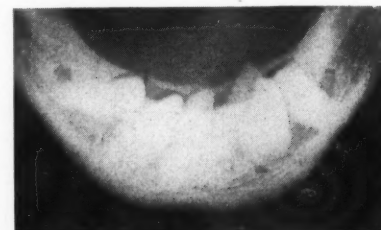


Fig. 2—Occlusal plane of same case, lower anterior area. Note six impacted teeth.

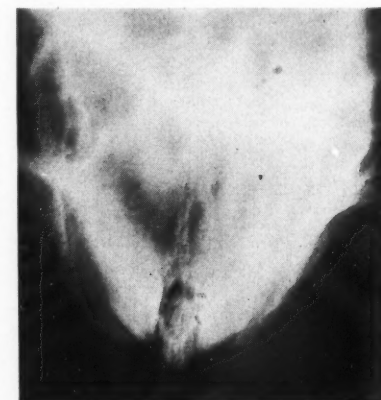


Fig. 3—Occlusal plane, anterior area of maxilla. Note two impacted cuspids near median line.

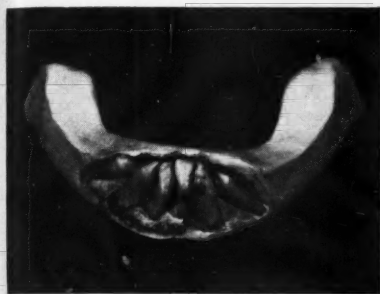


Fig. 4—Plaster model of mandible with extracted teeth implanted in model, showing position of impacted teeth before extracting.



Fig. 5—Roentgenogram of lower anterior area taken eight days following extractions.

horizontal, converging toward the median line.

The patient was prepared for surgery by the administration of $1\frac{1}{2}$ grains of nembutal; the right and left sides of the mandible were anesthetized with novocaine-cobefrin.

Operation—1. A horizontal incision was made over the crest of the ridge from cuspid to cuspid.

2. A vertical incision was made downward on the labial from each end of the

horizontal incision to effect a flap exposing the labial bone area.

3. The left lateral incisor with incisal tip, almost erupted, was removed first. Bone burs were principally utilized in removing so as not to exert any more pressure on bone structure than necessary. Care was also taken to prevent trauma to the lingual plate.

4. With the aid of bone burs and sharp elevators, using minimum hand pressure, bone was removed from the labial and between the teeth to expose the entire root and crown.

5. By slight manipulation of the elevator, the tooth was loosened in its bony socket and picked out labially.

The procedure on each tooth was the same. The six lower impacted teeth were removed at this sitting. This required two hours and ten minutes. Pathologic fracture, although expected in removal of the cuspids, did not occur.

6. The wound was packed with sulfa-mide, and sutured.

7. Nembutal, $1\frac{1}{2}$ grains, was given, and an ice cap was ordered to be used.

Postoperative Result—The patient reported to the clinic the following morning. Little swelling was noted and he reported only minor discomfort during the night following operation.

Because this was an unusual case, the position of the teeth in the mandible was carefully noted, and the vertical measurement of the mandible was obtained. The teeth were mounted in a plaster

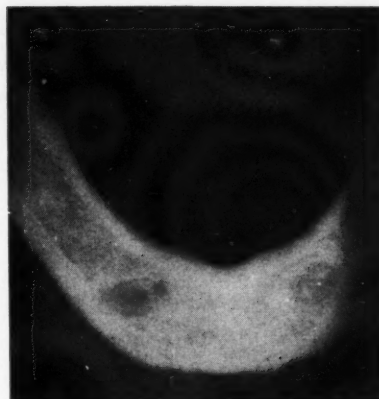


Fig. 6—Roentgenogram of lower anterior area taken approximately five months after removal of impacted teeth.

model of the mandible to show the position of the impactions (Fig. 4).

Healing took place normally. Fig. 5 shows the roentgenograms taken May 2, 1941.

Subsequent Surgery—Under date of May 8, 1941, the two impacted upper cuspids were surgically removed. The patient was discharged on May 14, 1941 to be rehospitalized later for dentures.

Postoperative Course—Under date of September 19, 1941, the patient was hospitalized for dentures. A roentgenogram was taken of the lower anterior ridge which shows normal healing (Fig. 6). The patient now wears dentures successfully. All headaches and nervous symptoms have disappeared.

Veterans' Administration.

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Fracture of Mandible with a Transverse Fracture of Edentulous Maxilla

JOSEPH E. SCHAEFER, M.D., D.D.S., Chicago

DIGEST

Roentgenograms are considered as little value in determining the extent of a fracture through the body of the maxilla. Gentle movement is suggested instead.

Treatment of a fractured mandible with a transverse fracture of an edentulous maxilla is by (1) a Kingsley splint (adapted to serve as if the patient had a full complement of teeth); (2) intermaxillary traction, and (3) intermaxillary fixation.

A TRANSVERSE fracture of an upper edentulous jaw with a fracture of the lower jaw with marked displacement offers a problem for the ingenuity of the dentist. Here, as in so many injuries of the bones of the face, dental appliances are helpful.

Determining Extent of Fracture

Roentgenograms of the maxilla having fractures through the body are of little help, because of the overlapping structures of the skull. The best procedure to determine the extent of the fracture is to grasp the maxilla gently and move it. The motion will be transferred to overlying soft structures and from this, one can deduce whether the fracture lines run through the nasal bones or the fronto-maxillary processes of the maxilla, or the orbits. Depressed malar bones can be determined by palpation of the continuity of the lower orbital margins, the asymmetry of the face, and the area of anesthesia produced by injury to the infra-orbital nerve.

Treatment

The fractured edentulous maxilla and



Fig. 1—Transverse fracture of maxilla involving nasal bones and naso-frontal processes of the maxilla. Note what little evidence is obtained from the roentgenogram. On close inspection one notes the break in the continuity of the left infra-orbital margin, and a fracture line through the nasal septum.

mandible are treated by constructing a Kingsley splint with elastic traction applied to a plaster skull cap. This aids in correcting the displaced maxilla. The Kingsley splint is built as a trial bite plate with a series of wire hooks em-

bedded into its rim to serve as attachments for elastic bands for the correction of the lower fracture. In other words, the Kingsley splint with its hook attachments, fixed to the top of the head, serves in the same manner for the cor-



Fig. 2—Kingsley splint in place with elastic traction to skull cap. Mandible fixed to splint.

rection of the fractured mandible as though the patient had a full complement of teeth.

Intermaxillary traction, and finally, intramaxillary wire fixation are used to reduce and immobilize the fractured mandible.

55 East Washington Street.



Fig. 3—Lateral view, same case as Fig. 1. One can discern comminution of the nasal bones and the naso-frontal processes of the maxilla. Again, the full extent of the injury to the maxilla is not discernible.

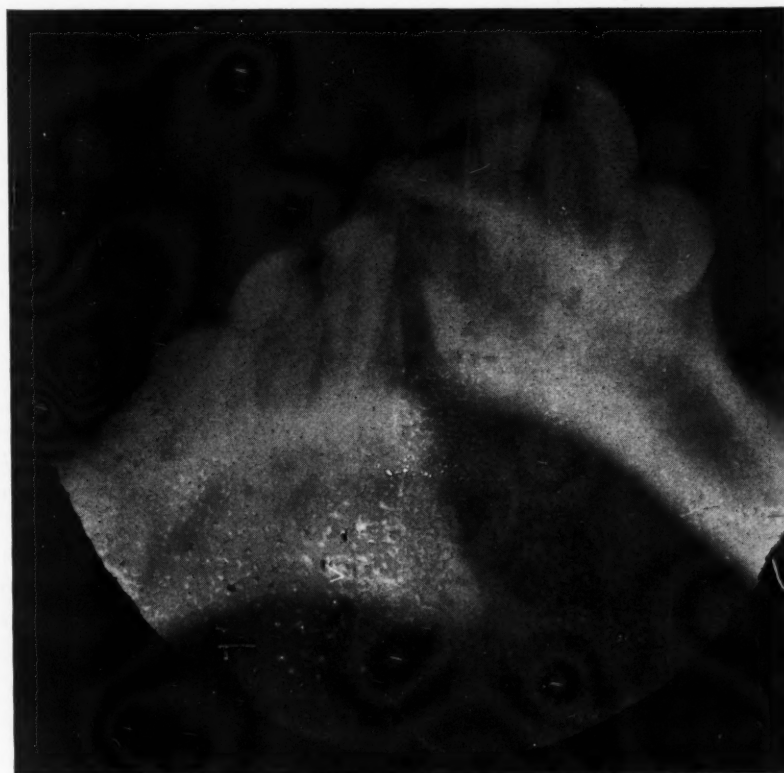


Fig. 4—Short fragment of the mandibular fracture was displaced downward and backward.

Semi-Annual Index 1942

VOLUME 48

NUMBERS 7 THROUGH 12

ANESTHESIA

- Cooper, Maurice P. and Hill, Louis G.:
Nasoendopharyngeal Intubation for
Dental Surgery with Nitrous Oxide-
Oxygen Anesthesia, August 376
Forman, S. A.: Self-Administered Ethyl
Chloride Analgesia, November 517

CROWN AND BRIDGE

- Gecker, Leon M.: Cast Gold Crown with
an Acrylic Labial Veneer, November.. 524
Kruse, Claude R.: Direct Technique for
Shoulderless Acrylic Crown Using
Coin Silver Matrix, August 372
Laby, Irving E.: Acrylic Bridges with
Gold Reinforcement, September 418
Stockton, Roger K.: The Cast Banded
Acrylic Veneer Crown, October 470
Tuerk, Milton: Acrylic Veneer Crown,
July 326

DIAGNOSIS

- Swift, Lionel V.: Multiple Impactions,
December 576

EDITORIALS

(The Editor's Page) (Not Eligible for Award)

Subjects:

- Oral Sepsis as an Etiologic Factor in
Cancer, July 334
Preparation of Dentists for Auxiliary
Medical Service, August 381
Disorders Associated with Erupting
Deciduous Teeth, September 425
Geriatrics (Care of the Aged), October 479
Pain, November 521
Oral Surgery in War, December 581

FACIAL PROSTHESIS

- Heron, David F.: Plastic Prostheses for
Lost Anatomic Parts, October 472

FULL DENTURE PROSTHESES

- Hardy, Irving R.: Technique for Use of
Non-Anatomic Acrylic Posterior Teeth,
December 562

Page

- Miller, J. S.: A Short Cut in Denture
Construction, August 374
The Optical System of Denture Con-
struction, September 408
Morange, R. M.: A New Permanent Den-
ture Liner for Acrylic Dentures, Au-
gust 366
Mitchel, K. F.: Muscle-Trim and Tissue
Control in Immediate Dentures, July 318
Schweitzer, Jerome M.: Combined Ana-
tomic and Functional Techniques of
Denture Construction, October 475

LABORATORY PROCEDURES

- Basler, Frank L. (Lieutenant, D.C.):
Problems in Dental Electroforming,
August 369

MEDICINE

- Constitutional Inadequacy: An Abstract
(Not Eligible for Award), August ... 373
Essential Features of Rheumatoid Arth-
ritis and Osteoarthritis: An Abstract
(Not Eligible for Award), November. 520

MISCELLANEOUS

- Aronson, Harry L.: A Simple Method of
Relining Metal Partial, August 380
Contra-Angles: (Not Eligible for Award)
July 339
August 384
September 434
October 480
November 532
December 582
Dental Disturbances in Airmen: An Ab-
stract (Not Eligible for Award), De-
cember 566
Grossman, H. A.: Child with Twenty-
Eight Permanent Teeth, November.. 510
Pavlinger, Jerome: The Patient's Head-
light, November 526
Resler, A. S.: Sterilizing of Needle and
Hub, December 567

- Substitute for Tin Foil: An Abstract
(Not Eligible for Award), September 421

OPERATIVE DENTISTRY

- Kaplin, Lester D.: An Unusual Recon-
struction Case, December 573
Perlow, Benjamin: The Use of Pins in
Restorative Dentistry, December 568
Rabinowitch, Bernard Z.: Cavity Prepa-
ration for Deciduous Teeth, November 512
Removal of Porcelain Jacket Crown: An
Abstract (Not Eligible for Award),
November 525
Robbins, Samuel M.: A Simple Method
for Making Acrylic Inlays, Jacket
Crowns or Bridges, September 422
Sayre-Smith, William T.: Digests of Ap-
plied Acrylic Techniques, November. 508
Schweitzer, Jerome M.: A Functional
Splint for Increasing the Vertical Di-
mension, July 330
Seidner, Leo S.: Modern Inlay Proce-
dure, October 464
Tuerk, Milton: The Repair of Broken
Porcelain Pontics with Acrylic Resin,
November 522

ORAL SURGERY

- Cartin, Samuel: Removal of an Impacted
Mandibular Third Molar, July 328
Droba, Henry J.: Modified Technique for
Treatment of Periapically Involved
Teeth, December 570
Howard, Menifee R.: Removal of Im-
pacted Upper Third Molar, July 323
Moorehead, Frederick B.: Elastic Traction
in the Treatment of Jaw Frac-
tures, August 362
Ogus, William I.: Electrosurgery in Den-
tistry, September 411
Shaefer, Joseph E.: Fracture of Man-
dible with a Transverse Fracture of
Edentulous Maxilla, December 578
Woodard, Don E.: Circumferential Wir-
ing Simplified for Edentulous Jaw
Fractures, July 321

PATHOLOGY

- Dermatologic Lesions of the Mouth: An
Abstract (Not Eligible for Award),
October 488
Meyers, Herman: Large Salivary Calcu-
lus in Submaxillary Gland, September 420

PERIODONTIA

- Hayes, I. P.: Compressed Oxygen in the
Treatment of Vincent's Infection, July 335

PHARMACOLOGY

- Ammoniacal Silver Nitrate in the Treat-
ment of Caries in Deciduous Teeth:
An Abstract (Not Eligible for Award),
November 548
Winkler, Newman D.: Topical Use of
Sulfanilamide and Sulfathiazole in
Postoperative Wounds, Extractions,
Fractures, November 517

ROENTGENOLOGY

- Tracy, W. Ward: Placing and Holding
Intra-Oral X-Ray Films, September.. 426

READERS' BALLOT

Who is the author of the best article published in THE DENTAL DIGEST since (and including) July, 1942? The dental writer receiving the largest number of reader votes will receive a \$100 United States War Savings Bond.

Use the Index on this page as a check-list to recall your favorite article. Write a letter explaining the reasons for your choice. The author of the winning letter will receive a \$50 United States War Savings Bond.

Please clip and mail this ballot, along with your letter, to The Editor, Edward J. Ryan, D.D.S., 708 Church Street, Evanston, Illinois:

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ISSUE:
WRITER OF LETTER:
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N. B. All ballots must be postmarked not later than January 8, 1943.
Announcement of Winners will be made in the January issue.

The Editor's Page

TO LEARN MORE and to learn best, it is generally advisable to consult people with the widest experience. The British have such an experience in the treatment of maxillo-facial injuries incurred during the present war. Recently four British dentists published a book¹ which should be the model for other war manuals. W. Kelsey Fry, P. Rae Shepherd, Alan C. McLeod, and Gilbert J. Parfitt have collaborated in a publication that is totally devoid of either flamboyance or pedantic writing. The book is original in the sense that it does not lean on quotations from the past triumphs of other writers; nor have the authors resorted to plagiarisms from textbooks on anatomy, physiology, or pathology. These British dental authors, unlike many of their writing colleagues in the United States, believe that one who represents himself to be a surgeon must have a solid foundation in the medical sciences, and therefore, it is not necessary to review the entire field of knowledge about these subjects. The men who wrote this new book did so from firsthand experience. They treated fliers who were burned and maimed in defending the British Isles. They ministered to the people caught in the great air raids over England. They know what wounded people look like, how they behave and what to do for them. Theirs is not a theoretical approach. The philosophy of our colleagues in Great Britain is exemplified by this quotation: "It is a wounded human being, not a fractured jaw with a patient attached to it, that is under treatment; the treatment of the human being, both physically and mentally, is at least as important as the treatment of the fracture."

The authors are members of one of the nine maxillo-facial units operating under the emergency hospital scheme of the Ministry of Health. Their unit is located at East Grinstead. These men have written for other dentists who are themselves preparing to treat the conditions of maxillo-facial injuries under warfare. Their book is sensible, practical and direct.

The especially notable chapters are those on the mechanism of bone repair and roentgenologic interpretations. The X-ray apparatus is an extremely important instrument in modern diagnosis and treatment planning. There are certain anatomic artefacts which frequently appear, however, in a roentgenographic plate of the head which can cause errors in diagnosis. Some of these structures closely simulate fractures: (1) the intervertebral spaces, (2) the hyoid bone, (3) the soft tissues of the neck, (4) the naso-pharyngeal air space, (5) the air space between the tongue and

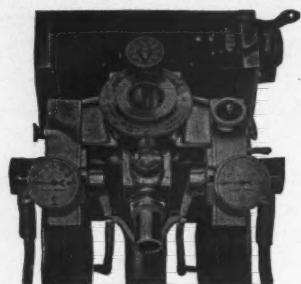
soft palate. These authors likewise point out in their discussions on roentgenology that there is a widening of the fracture line seen after treatment has begun. This, they regard as a normal phenomenon—not a symbol of infection or some complication interfering with union. The authors say that this represents an absorption of the bone of the fractured surfaces as a preliminary to healing. It is usually observed two or three weeks after occurrence of the injury.

The authors favor the cast cap splint type of immobilization. They believe in covering the teeth with cast splints and immobilizing by intermaxillary wiring. They anticipate the objections that are frequently raised to this method; namely, the dangers of opening the bite by covering the occlusal surfaces of the posterior teeth. The authors do not feel that this is particularly objectionable, however, because they contend that there is a return to the normal occlusal relations after the appliances are removed. Some of us might argue this point.

In emergency field treatment the extreme importance of maintaining free airways is emphasized. In fractures of the lower jaw with displacement of fragments backward, there is frequently a tendency for the tongue to fall into the throat. In fractures of the upper jaw, on the other hand, with the downward displacement, there may be a dangerous blockade of free airways. Other factors present respiratory obstructions likewise: the presence of blood clots, vomitus, foreign bodies, and teeth. To prevent respiratory obstruction the tongue should immediately be pulled forward, the mouth and pharynx cleaned with the forefinger, and the patient placed in the prone position, so that the force of gravity will keep the tongue forward and allow blood and saliva to drain from the mouth. In emergency treatment never place a person with a fractured jaw on his back. For simple methods of emergency immobilization the authors use bandages, single jaw fixation with interdental wiring, single arch wiring, and also intermaxillary fixation.

It would be a helpful event for dentistry in the United States if some dental society would see that W. Kelsey Fry, the senior author of the book discussed here, or one of his associates perhaps, paid an early visit to the United States to give lectures before dental groups from coast to coast. We hope that some dental society will pick up this suggestion: to bring men here to address us, men who have seen casualties at firsthand, who have treated them, and have helped return patients to military service and to restore them for useful life after the war.

¹Fry, W. K., Shepherd, P. R., McLeod, A. C., and Parfitt, G. J.: *The Dental Treatment of Maxillo-Facial Injuries*, Oxford, Blackwell Scientific Publications, August, 1942.



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Contra- Angles



Qualitative Starvation . . .

Scarcely a week passes without some governmental agency sending out a publication on the subject of nutrition. It may come from the Department of Agriculture ("Food Fads, Facts, and Fancies"); from the Department of Labor ("The Road to Good Nutrition"); or it may be a news letter on nutrition from the Federal Security Administration. They all represent a growing consciousness on the part of governmental agencies of the value of good nutrition.

Every day of their lives dentists are confronted with the evidences of malnutrition—malnourished people who are listless, pot-bellied, pasty-faced, with lack-lustre hair, inflamed oral tissues and poor dentition; or skinny-scrawny kids with adenoid faces and malocclusions and pimply skin. Why in a land of plenty do we have this qualitative starvation? Federal agencies tell us that for the most part people do not apply the information that they have on food nutrients. Although in some homes the housewife is a zealous nutritionist, most of the club meals, group dinners at hotels, including most dental society "banquets," boarding school and fraternity house diets are violations of all laws of nutrition.

The teaching of the subject of nutrition has been particularly poor. We have tried to indoctrinate young girls with this important subject under the label of "domestic science" or "home economics." Either term is a poor choice from the standpoint of semantics. In her youth or adolescence, dreaming of her Knight coming forth on a White Charger to find her, she hates to think of herself as preparing for a life of drudgery. Perhaps nutrition has been taught too much with the emphasis on cooking and scullery and

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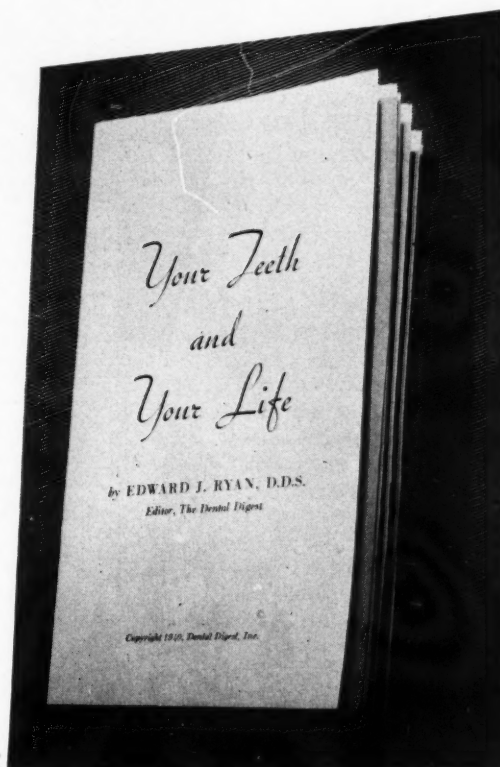
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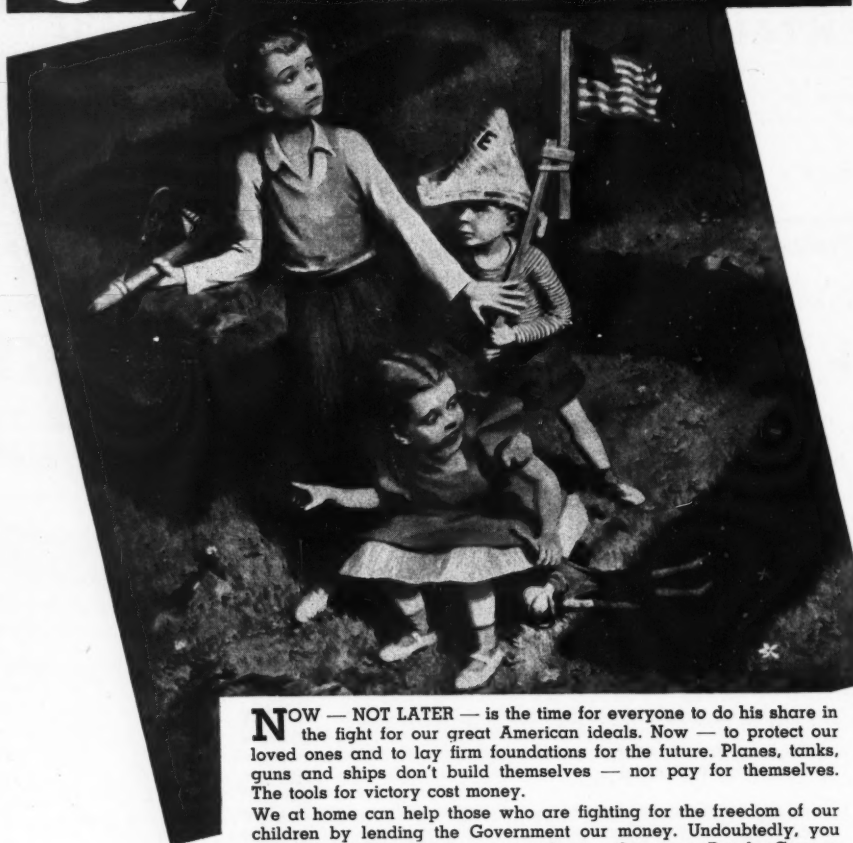
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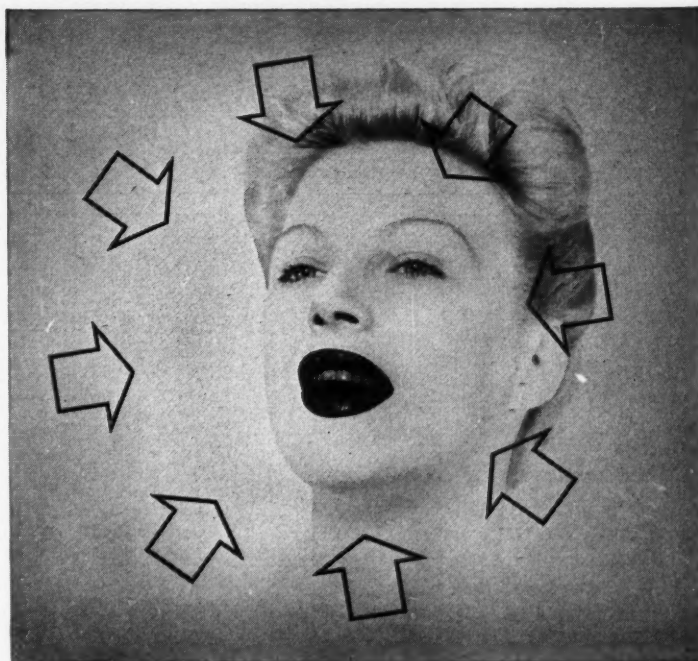
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not enough on life facts. If we could tell impressionable youngsters that only with proper nutrition are they able to have beauty, social acceptability or possess athletic skills, we would likely get further than by emphasizing health and disease. Children care little for health talk, because most of them have not experienced ill health except as acute diseases. Disease to them means something that their grandparents suffer from and their parents complain about; but good looks, ability in sports, social acclaim—these they understand as attributes rightly theirs.

We know enough about nutrition to recognize that clear skin, muscular coordination, shiny hair, and strong teeth cannot be had without a high nutritional level. Vitality, verve, and endurance depend on a well nourished body. If we would emphasize these values and forget about calories and the litany of the vitamins and would teach the facts of nutrition in terms of living attributes, I believe we would have better success in inculcating in youngsters wholesome habits of eating.

The government releases on nutrition

foreshadow the future. We are being told in a subtle way that there will be food-luxury scarcities and rationing beyond the present status. We are being told to prepare ourselves to maintain our essential nutrition on the simple foods that will be available. This information must be widely disseminated, and it is the dentists' opportunity to be among those spreading the word.

Those of us who have lived in college communities or who have observed college students are appalled with the food habits of this later teen age group. The consumption of the carbonated soft drinks, candy bars, cigarets is staggering. Hamburgers and hot dogs take the place of more sustaining foods. These young people are the patients we see with rampant tooth decay; and it is they who are soon to be called for military duty. We will be chagrined when we see their health figures. It is true that their age group represents the best prospect for soldiers, but we will find more defects among them than anyone anticipates.

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and people complaining that the government tells them to eat the proper foods, so that they can contribute more fully to the war effort, but the government has done little to see that civilians have food at prices that they can pay. There are a great many large families in this country in which the wage-earner has not profited from the increase in the general income of the population during this war program. The problem of feeding five or six children satisfyingly and with nourishment taxes the ingenuity of any mother and certainly the pocketbook of the father.

There are all sorts of reasons why the food situation is complicated. It likely will become more complicated before it becomes less so. The United States is buying large quantities of food for our troops that are fighting throughout the world. (And in the years ahead the United States will have the prospect of feeding a large share of the civilian population of the world. With this growing demand, it is frightening to think of what might happen to live stock and poultry, to say nothing of things growing on the vine and in the ground, if noxious gases are used in the war.) Seldom do we think that such unromantic things as fertilizers are essential to the economic life of the nation. Shipping difficulties, for example, hinder the transportation of Chilean nitrate which is an important fertilizer, supplying nitrogen for the soil. Some of the other chemicals in fertilizers, although readily available, are needed in more urgent aspects of the war effort: potash, phosphate, and lime, for example. Some of the chemical sprays for fruits are unavailable, because their sources are outside the country. Conditions in the labor market contribute to the acute food situation. People are not going to hire out as hands on the farm for \$30 a month when they can make \$200 working in a munitions factory.

Indeed, the nutrition story is a complicated one. It must be told and told in many forms to the American people to impress on them the necessity of learning to acquire nutrients from simple, available foods and the necessity of learning how to retain these essentials in the preparation of such foods. So far we have only begun to reach the average

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In your ORAL HYGIENE this month



A dentist gives his "off the record" experiences with slick salesmen and racketeers.

Three Unusual Feature Articles

There are three unusual feature articles in this month's ORAL HYGIENE. They typify the broad scope of the magazine's editorial program. In "A Veteran Talks to Dentists in Service," Doctor Clyde Henry Kleinert presents practical suggestions that will help a dentist in service to keep his patients and friends interested in him.

In "I was a Dentist in the German Army," Doctor Martin Stiefel—now practicing in Philadelphia—describes his experiences as a German dentist during World War I, and tells of post-war conditions.

There's a lighter touch—but useful information—in Doctor M. Forwaller's article, "I've Been a Sucker." Often the victim of slick salesmen and racketeers, the doctor exposes their methods so as to warn his brother dentists.

Doctor Robert LeCron, an American dentist home from London, reports on

the functioning of the American dental ambulance—the gift of American dentists to their British colleagues.

A full page of pictures, taken by ORAL HYGIENE's photographer, depicts a battalion first-aid station at the Institute of War Medicine and Surgery, held recently in Chicago. This month's editorial tells about the Institute.

And, speaking of pictures, this month ORAL HYGIENE prints the second in its brand-new series, "How to Kill a Dental Practice." The series is portraying, in dramatic photographs, thoughtless acts which may antagonize patients. This is likely the first time that anyone has used photography to present fundamentals of practice management.

But that isn't all you will find in your December ORAL HYGIENE. Nine departments round out the issue. And also, in this issue, there's the complete 1942 annual index.

In your DECEMBER *Oral Hygiene*

citizen with the story. Dentists must learn more about food facts and take advantage of their rôle as educators to instruct their patients in this field—not by telling people what they should eat for their teeth—there is no specific food to prevent dental disease—but rather what they should eat for their total well-being.

From Where We Sit . . .

We have pointed out many times in this column that events take on a different shape, according to the angle from which they are viewed. The angle may be that of self-interest, prejudice, or over-enthusiasm. Any emotionalized pleading will warp vision and judgment. At present there is a controversy going on about the distribution of physicians and dentists throughout the country to meet the war and civilian needs. Some of the more alarming commentators would have the American people believe that before 1943 is out dentists and physicians will be at a premium and whole communities will be subject to scourges and pestilences and pains.

Diametrically opposed points of view on this situation are represented by *Time*¹ and the *Journal of the American Medical Association*.² *Time* would have us think that Mr. Henry J. Kaiser, the lightning shipbuilder from the West Coast, furnishes complete medical care to his workers for fifty cents a week and that somehow the American Medical Association is opposed to this activity. Furthermore, *Time* would have us think that Mr. Kaiser can build hospitals as swiftly, as magically, as he builds ships, and that the fabrication of hospitals by the medical profession at the present time is an impossibility.

We read in the *Journal of the American Medical Association*, however, that Mr. Kaiser's sudden interest in medical practice springs from the "desire of some industrial leaders and their full time staffs of physicians which they employ to maintain their individual empires without disturbance regardless of the needs of the armed forces for physicians. They believe apparently that individual physicians should be

(Continued on page 592)

¹Time, November 16, 1942, page 74.

²Editorial, The Pepper Hearings on Medical Manpower, J.A.M.A. 120:840 (November 14) 1942.

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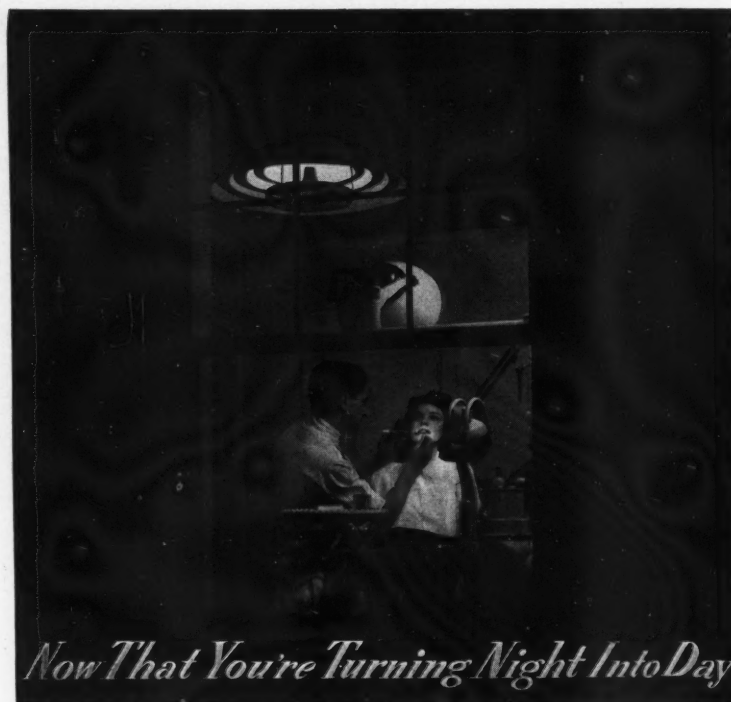
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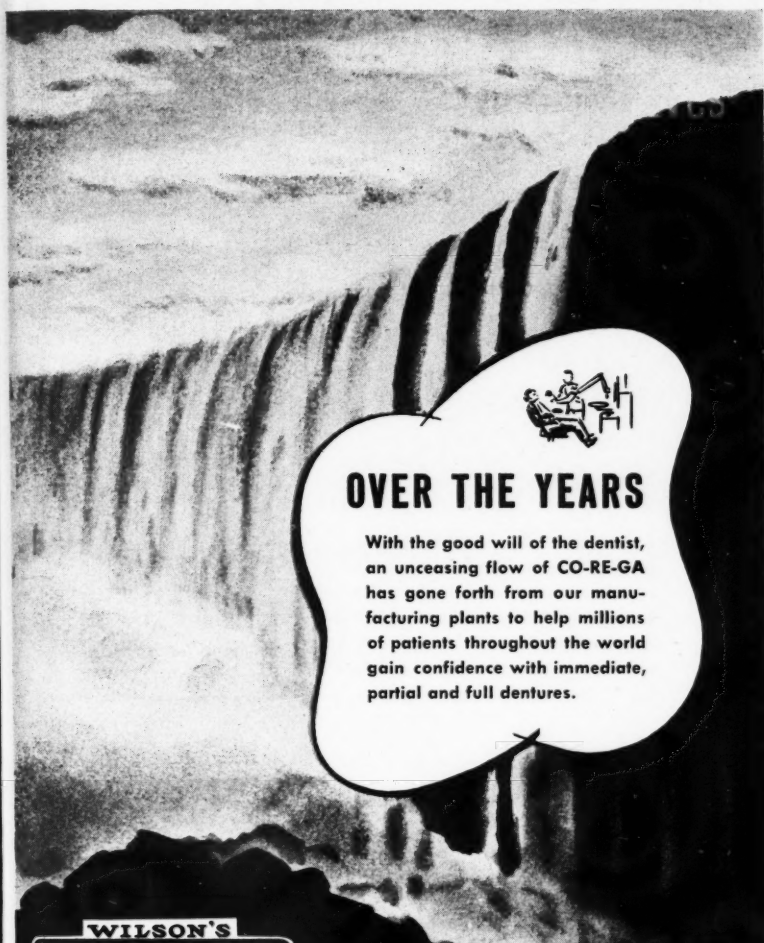
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DENTAL CEMENTS

(Continued from page 588)

taken by the armed forces before clinics, private hospital staffs, industrial organizations or similar groups are in any way disturbed."

Somewhere between these antithetical poles of opinion lies the truth. The American Medical Association characterizes Senator Pepper of Florida as the conductor of a one-man "inquisition." It is he who is now flagellating the American medical profession and trying to make the profession look like a bunch of obstructionists. He is aided and abetted by two doctors of philosophy who have written too much on the subject of medicine: Paul de Kruif, the medical romanticist, and Michael M. Davis, formerly the medical director of the Rosenwald Foundation and long an advocate of socialized medicine.

One of the assaults on American medicine, which certainly includes dentistry, is being directed against the Procurement and Assignment Service. Mr. Davis particularly dislikes the voluntary nature of this Assignment Service and wishes it to become a part of the United States Public Health Service, although Doctor Parran is evidently not disposed to accept his gratuitous offering. The function of the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, which is a part of the War Manpower Commission, should be clearly understood. The Procurement and Assignment Service is a voluntary organization which first enrolled the physicians, dentists, and veterinarians of the country for war service, by asking each man to express his preference for the type of service he wishes to perform. The Procurement Service also functions to determine which professional people are essential and should remain in their communities and which are available for military service.

In general the needs of the armed forces for physicians have been met, although there is still a demand for this type of personnel. The demand for dentists has been met satisfactorily and entirely at the present time. It is quite likely, however, that with the expansion of the armed forces to 9,700,000 men by the end of 1943, there will be a drastic demand made on professional personnel. It will mean that about 20,000 den-

tists will be required and about 65,000 physicians. And here, too, the Procurement and Assignment will function to transfer available medical and dental personnel to professionally depleted communities. If any governmental agency, working independently of the professional organizations of medicine, dentistry, and veterinary medicine, were to attempt to assign so many specialized men for military duty and to protect the civilian communities, the

result would be complete chaos. The President wisely understands that professional groups are extremely well organized and function ably, and he realizes that the spirit of professionalism is such that matters pertaining to the professions can safely be left to them. Unlike some trade groups or labor unions, professional organizations do not conspire to raise prices and wages or to curtail free enterprise. Every professional association worthy of its name

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directs its energies to improve its own members, so that they can give better service to the suffering and sick in their communities. The professions constantly subsidize research to decrease the need for dentists and physicians.

There is forming the vague outline of a conspiracy to undermine public trust in medicine. The suit brought against the American Medical Association for violation of the Anti-Trust Laws, the "inquisition" of the Pepper committee,

the rantings of some of the enemies of medicine, and the press—these suggest that there are people in this country who are striving hard to change the form of professional practice and to take it entirely out of the arena of free enterprise and make it a governmental activity. None of these present-day advocates of socialized medicine seems to have the courage to call the product by the proper name. Rather these advocates have adopted the strategy (apparently in col-

lusion and conspiracy) of attempting to dishonor medicine. By so doing, they evidently wish to turn to the people after the war and say, "Medicine has failed you. Physicians, dentists, and veterinarians are enemies of the people. They must be controlled and their practices must be supervised by the government. What we need is legislation to do away with private practice." This predicted out-and-out statement should not be expected for some time. The groundwork of deprecation of the professions will be prepared carefully in advance. All attacks against professional organizations, against the American Medical Association specifically, should be judged, not entirely in terms of the moment, but in the light of the future.

—E.J.R.

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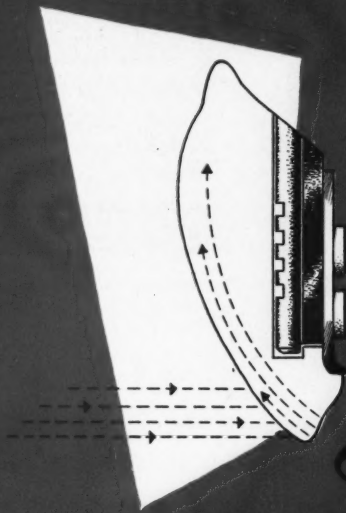
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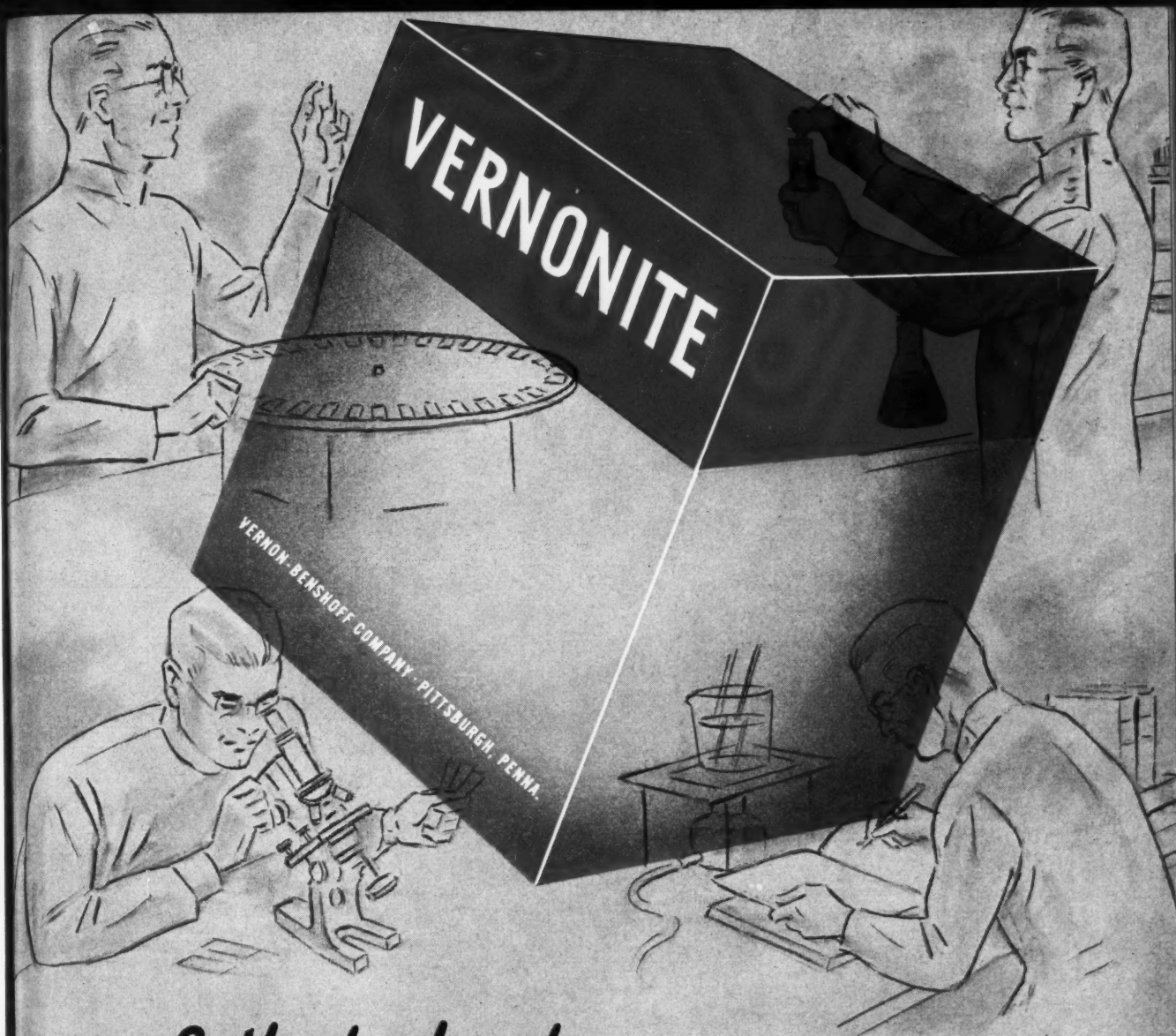
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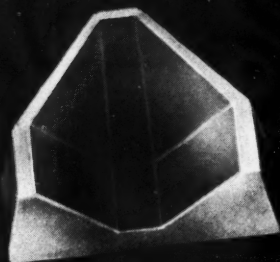
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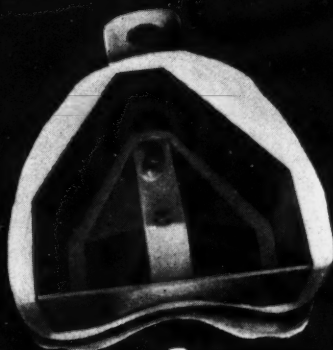
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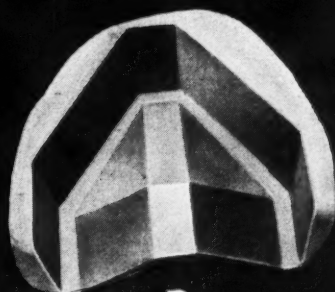
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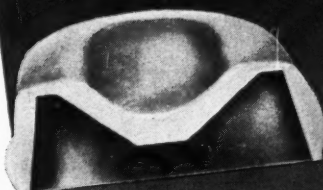
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